DOCUMENT RESUME

ED 030 727 VT 008 614

By-Foley, Dennis J., Jr.
Handbook on Recruitment of Potential Industrial Arts Teachers.
New York Univ., N.Y. Dept. of Vocational Education.
Spons Agency-Office of Education (DHEW), Washington, D.C.
Pub Date Sep 67
Note-88p.
EDRS Price MF-$0.50 HC-$4.50

Descriptors-*Check Lists, *College Students, *Industrial Arts, *National Surveys, Public Relations, Questionnaires, *Recruitment, Student College Relationship

The purposes of this national study were to investigate practices used by colleges in the recruitment and selection of potential industrial arts teachers, to identify factors which influence students to enter industrial arts teaching, and to devise recruitment and selection procedures. Questionnaire data were collected from 270 college students and 174 college department heads in a population of 200 colleges. Some of the 20 most effective recruitment measures identified by department heads were: (1) contacts with industrial arts teachers, (2) high school visits by faculty, (3) activities of industrial arts majors, (4) career days and related activities, (5) project contests, and (6) contacts with high school counselors. Some of the 18 advantageous reasons for student's choosing industrial arts majors were: (1) personal enjoyment of industrial arts activities, (2) satisfactions expected from teaching, (3) contributions to students, (4) enjoyment of young people, (5) fringe benefits and, (6) employment conditions. The student questionnaire and a checklist of recruitment practices are appended. (EM)

ED030727

NEW YORK UNIVERSITY
SCHOOL OF EDUCATION
Department of Vocational Education

HANDBOOK ON RECRUITMENT OF POTENTIAL INDUSTRIAL ARTS TEACHERS

A summary of an investigation of current practices used by colleges in the recruitment and selection of potential industrial arts teachers, and the identification of factors which influence students in deciding to prepare for industrial arts teaching.

Denis J. Foley, Jr.

September 1967

VT008614

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Dep~~artment~~t. of Vocational Education.

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ACKNOWLEDGEMENTS

This handbook was developed as part of a doctoral research study at New York University. The advice and encouragement of the following members of the investigator's sponsoring committee are gratefully acknowledged: Professor Raymond Van Tassel, Chairman; Professor William R. Grieve; and Professor John C. Robertson.

Appreciation is also extended to the many industrial arts teacher educators and college students who participated in the study.

The work reported herein was performed pursuant to a grant from the United States Office of Education, Department of Health, Education, and Welfare.

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CHAPTER I

INTRODUCTION

Investigation of the process of attracting and persuading capable young men and women to prepare for careers in teaching industrial arts is one part of the larger problem of teacher recruitment. Durflinger has stated that, "Research on recruitment problems is desperately needed."[1] He has indicated that the nation will need 200,000 new teachers annually for at least a decade. In addition there are 90,000 to 100,000 teachers with substandard credentials who need additional training as soon as possible.

The responsibility for recruiting and educating the needed new teachers has long been recognized as an obligation of the teaching profession. In 1952, T.M. Stinnett, then Executive Secretary of the National Commission on Teacher Education and Professional Standards declared, "A basic obligation of any profession is to exert every effort to assure a continuing and adequate flow of qualified practitioners into the profession. This obligation rests with

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[1] Glenn W. Durflinger, "Recruitment and Selection of Prospective Elementary and Secondary School Teachers," Review of Educational Research, XXXIII (October, 1963), 355.

with especial emphasis upon the teaching profession."[2]

Sam M. Lambert,[3] Director of the Research Division of the National Education Association, has recently called attention to the need to focus recruitment efforts on obtaining teachers in subject areas of greatest shortage. In 1964 industrial arts teachers ranked thirteenth out of seventeen high school teacher groups when compared in terms of the number of new graduates certified to teach over the number of the previous year.[4]

Ogle[5] discovered that one of the impediments to the development of high school programs of industrial arts in West Tennessee was the inability to obtain qualified teachers. Winans[6] found that industrial arts teachers are included in the group for which there will be greatest future demand in

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[2] Teacher Selective Recruitment Programs, A Report by the National Commission on Teacher Education and Professional Standards (Washington, D.C.: National Education Association of the United States, 1952), p. iii.

[3] Teacher Supply and Demand in Public Schools, 1964, A Study by the Research Division (Washington, D.C.: National Education Association, 1964), p. 5.

[4] *Ibid.*, p. 8.

[5] Robert Lee Ogle, "Industrial Arts in the Public High Schools of West Tennessee, 1962-63" (unpublished Doctor's thesis, The University of Tennessee, 1963).

[6] Seymour David Winans, "Development and Application of a Technique for Forecasting the Need for Teachers in New Jersey Public Secondary Schools" (unpublished Doctor's thesis, Temple University, 1963).

New Jersey. A study by the New York State Bureau of Industrial Arts reveals that the teacher education institutions in that State are not graduating enough industrial arts teachers to meet the demand. One conclusion of the study is, "There is need to study methods of recruiting students for industrial arts teacher education programs and increasing facilities for the preparation of industrial arts teachers."[7]

A recent statement by Worthington and Koble focuses attention on the national scope of the problem, "One of the greatest needs for competent teachers is in industrial arts. Due to the expansion of the industrial arts curriculum and the increased enrollment in secondary schools across the country more teachers of industrial arts are definitely needed."[8] Articles by Feirer[9] and Boyd[10] have also called national attention to the need to recruit additional industrial arts teachers.

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[7] The University of the State of New York, The State Education Department, Division of Industrial Education, Bureau of Industrial Arts Education, "A Study of Industrial Arts Teacher Needs for the Period 1961 to 1970." Albany, New York: Duplicated report by the Bureau, February, 1961, 8 pages.

[8] Robert M. Worthington and Ronald L. Koble, "Developing Industrial Teacher Education Programs," American Vocational Journal, XXXIX (September, 1964), 26.

[9] John L. Feirer, "Needed: Qualified Industrial Arts Teachers," Industrial Arts and Vocational Education, LIII (June, 1964), 15.

[10] Gardiner Boyd, "Recruit We Must," The Journal of Industrial Arts Education, XXV (May-June, 1966), 12-13.

The delegates to the 1966 convention of the American Industrial Arts Association recognized the national scope of the problem by passing the following resolution:

> Whereas, the shortage of qualified industrial arts teachers in American schools has been termed critical for several years, and
> Whereas, the shortage seems to be becoming ever more critical, and
> Whereas, any professional body has a responsibility for furnishing qualified personnel to the field it serves,
> Therefore, Be it resolved, that the American Industrial Arts Association initiate and develop a plan for teacher recruitment on a national basis.[11]

The Problem

The purpose of this study was to investigate current practices used by colleges in the recruitment and selection of potential industrial arts teachers, to identify factors which influence students in deciding to prepare for industrial arts teaching, and to devise improved recruitment and selection procedures.

Industrial arts is defined as "that part of the total program of education concerned with providing youth an opportunity to study about and to use tools, materials, and processes of industrial-technical fields. Industrial arts education is provided at the elementary school, junior high school, high school, and college levels."[12]

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[11] Frontiers in Industrial Arts Education, Addresses and Proceedings of the 28th Annual Convention of the American Industrial Arts Association, San Francisco, 1966 (Washington, D.C.: The Association, 1966), p. 170.

Teacher recruitment is defined as "the process of attracting and persuading capable persons to prepare for and to enter the teaching profession; usually associated with such appeals to high school graduates and college students."[13]

The colleges included in this investigation were limited to those located in the United States which were reported to have undergraduate curricula in industrial arts or industrial education.[14]

The student population selected to determine factors which influenced their decisions to prepare for industrial arts teaching was limited to a sample of those who began their first year in an industrial arts teacher education curriculum during the 1966 calendar year.

Related Literature

Few studies of recruitment of potential industrial arts teachers have been reported. Kurth[15] made a questionnaire study of 60 per cent of the institutions preparing industrial arts teachers in 1955. He reported that the most effective recruitment practices were those involving personal contact between prospective teachers and college or industrial arts personnel. Professor Whitesel[16] of Miami University studied college recruitment practices, and the supply and demand for industrial arts teachers over a three year period, 1957-1959. The five recruitment practices reported as "most helpful" in Whitesel's study directly involved contact between prospective teachers and high school or college teachers. Professor Whitesel reported geographic patterns of greatest and least shortage of industrial arts teachers. The most acute shortages were in the most heavily populated and industrialized states. The institutions preparing industrial arts teachers reported an average of two requests for new teachers to each student graduated.

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[12] American Council of Industrial Arts Supervisors, Industrial Arts Education, Purposes, Programs, Facilities, Instruction (Washington, D.C.: American Industrial Arts Association, Inc., 1963), p. 2.

[13] Carter V. Good, Dictionary of Education (second edition; New York: McGraw-Hill Book Company, Inc., 1959), p. 452.

[14] Industrial education is a broad term which includes industrial arts as well as vocational and technical education.

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[15] Edwin L. Kurth, "Certain Developments and Trends in Industrial Arts Teacher Education" (unpublished Doctor's thesis, University of Florida, 1955).

[16] John A. Whitesel, "Supply and Demand of Industrial Arts Teachers and Recruitment of College Students in Industrial Arts Teacher Education." Mimeographed report of a study made by Professor Whitesel of Miami University, Oxford, Ohio, during the 1959-60 school year, 11 pages.

Jahrman[17] studied four groups of high school students in one area of Arkansas in order to recommend devices and content to be used for recruitment of prospective industrial education teachers. One conclusion was that a visit from a college representative was more effective than several other recruitment methods.

Mehallis[18] found that an industrial arts awards program, launched in 1957 in Miami, Florida with the initial purpose of recruiting teachers had assumed many other values. Recruitment of industrial arts teachers turned out to be one of the "lesser values" of the program.

Only two studies have been located in which the choice of industrial arts teaching as a career is of direct concern. Senteney[19] studied 1356 industrial education majors who graduated from sixty-four colleges during the years 1946-50. He found that the most important reasons given for choosing industrial education teaching programs in college were:

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[17] Quain Kenneth Jahrman, "Recruiting Prospective Teachers of Industrial Education" (unpublished Doctor's thesis, University of Arkansas, 1964).

[18] George Mehallis, "Industrial Arts Teacher Perception of the Merit Award Program for Youth" (unpublished Doctor's thesis, The Ohio State University, 1963).

[19] George William Senteney, "Factors Relating to the Choice of Industrial Education as a Career and Retention of These Teachers in the Profession" (unpublished Doctor's thesis, University of Missouri, 1955).

(a) interest in this type of work; (b) high school shop experience; and (c) work experience. Those graduates who did not enter teaching most often took industrial jobs which paid higher salaries than teaching.

Trout and Sievers recognized that:

> A few students enter Industrial Arts Teacher Education programs because they are unable, unwilling, or uncertain about some other goal. In contrast there are numerous students who have chosen this specialty as a result of systematic self-study and an understanding of the professional demands and rewards. They benefited from selective counseling and guidance which probably began in the seventh or eighth grade.[20]

The authors pointed out the importance of the example set by industrial arts teachers at the junior high school level.

Nelson[21] recognized that, "For industrial arts majors, the standard admission criteria, the entrance tests, high school rank and similar items offer no help except to exclude those who appear to be incapable of carrying the academic work of higher education; they give us no estimate of fitness for industrial arts teacher education." He investigated, "the hypothesis that incoming freshmen, in addition to meeting the general admission requirements, might possess some measurable interest patterns which could be compared with those of our finest teachers."[22] Nelson used the Minnesota Vocational Interest Inventory to study: (a) experienced industrial arts teachers in graduate programs; (b) seniors graduating from industrial arts teacher education programs; (c) freshmen entering industrial arts teacher education; and (d) freshmen drop-outs as they occur. The investigator found:

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[20] David M. Trout and Frank Sievers, "Student Personnel Practices," Superior Practices in Industrial Arts Teacher Education. Fourth Yearbook of the American Council on Industrial Arts Teacher Education (Bloomington, Illinois: McKnight & McKnight Publishing Company, 1955), p. 10.

[21] Howard F. Nelson, "The Selection of Students for Industrial Arts Teacher Education," Essentials of Preservice Preparation. Eleventh Yearbook of the American Council on Industrial Arts Teacher Education (Bloomington, Illinois: McKnight & McKnight Publishing Company, 1962), p. 148.

> 1. As a group, competent, professional industrial arts teachers possess clearcut patterns of interests which are markedly homogenous; these can be identified by the use of an appropriate interest inventory.
> 2. These patterns of interests are sufficiently distinct to permit a researcher to clearly differentiate industrial arts teachers from other selected groups.[23]

He concluded, "that some real progress has been made in keying an interest inventory in a manner which will begin to prove helpful in identifying and selecting freshmen students for industrial arts teacher education."[24]

Another aspect of selective admission of students to industrial arts teacher education curricula is the acceptance of transfer students. O'Dell[25] found a need for better communication and articulation between junior colleges and the Industrial Arts Department at San Diego State College. In a study of another California State College, Torres[26] identified a need to revise the testing program used to include tests whose measurements are significantly related to the outcome of the present industrial arts program at the college.

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[22] Ibid., p. 148. [23] Ibid., p. 153. [24] Ibid., p. 157.

[25] Robert Doran O'Dell, "A Study of Factors Related to the Transfer of Junior College Students to State College Programs in Industrial Arts" (unpublished Doctor's thesis, University of California, Los Angeles, 1963).

Spence[27] identified two reasons for the shortage of industrial arts teachers as the addition of industrial arts in many schools, and the expansion of existing programs in other schools. Two undesirable results of the shortage reported were the closing of some programs and the employment of unqualified teachers to keep others going. He reported that returns from a brief questionnaire sent to college industrial arts departments revealed, "that 147 believe we must actively recruit young men into industrial arts teaching. Four said no."[28] Four recruitment methods were reported by more than half of the 153 colleges that responded. They were:

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[26] Leonard Torres, "A Study of the Relationship Between Selected Variables and the Achievement of Industrial Arts Students at Long Beach State College, (Research Study No. 1)" (unpublished Doctor's thesis, Colorado State College, 1963).

[27] William P. Spence, "Recruitment of Industrial Arts Teachers." Mimeographed copy of an address to the American Vocational Association Convention, Denver, Colorado, December, 1966, 13 pages.

[28] *Ibid.*, p. 2.

> Send faculty to "College Nights" and "Career Days" held in Public Schools (70.6 per cent)
> Mail brochures to industrial arts teachers (67.3 per cent)
> Participate in an on-campus high school senior visitation day (64.1 per cent)
> Mail brochures to counselors (62.1 per cent)[29]

Spence suggested three additional ways to reduce the industrial arts teacher shortage. First, improve retention. Many qualified industrial arts teachers leave teaching, or never begin teaching, each year. Better salaries in industry and poor teaching facilities were identified as the chief reasons. Second, recruit women as well as men for industrial arts teaching. Third, recruit more Negro youth into teaching.

Anderson[30] reported a unique recruitment program conducted by five industrial arts teachers in an Arizona high school. Each appeared before his colleague's classes as a guest teacher to present a one period lecture-discussion of industrial arts teaching as a possible career choice. One week following the discussion 533 students responded to a ten item evaluation of the lesson. Anderson reported that half of the students were surprised at the salary opportunities in teaching. Almost as many did not know previously that the preparation for industrial arts teaching was similar to that required of other teachers.

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[29] Ibid., p. 8.

[30] William A. Anderson, "Teacher Recruitment Program," School Shop, XXVI (December, 1966), 34-35.

Procedure

Two hundred colleges and universities in the United States were identified as institutions that offered curricula which prepared students for certification as industrial arts teachers. A questionnaire was developed by the investigator and reviewed by seven industrial arts teacher education department heads selected at random from among the two hundred institutions. This instrument was used to obtain data from heads of the college departments, which offered industrial arts teacher education curricula, on three aspects of the problem of recruiting and selecting potential industrial arts teachers. The data reported were: (a) current recruitment practices used by the institutions to attract potential industrial arts teachers; (b) the criteria for admission to the institutions and to the industrial arts teacher education curricula; and (c) the sources from which the institutions obtained new students, their present and future capacity for educating such students, and the need for and placement of their graduates. Usable responses were obtained from 174 department heads, representing 72 per cent of the institutions.

Two-thirds of the same population responded to a post card questionnaire; reporting data on enrollments in industrial arts teacher education curricula, and indicating each department head's willingness to cooperate in a survey of students in his department.

Fourteen institutions were selected to participate in a questionnaire survey of students in their first year of an industrial arts teacher education program. Twelve of the department heads returned completed questionnaires from 270 students. The students reported: (a) educational data including when they first became interested in, and when they decided to prepare for, industrial arts teaching careers; (b) the people and experiences which were influential in their career decisions; and (c) their personal reasons for choosing this career.

This handbook reports the major findings of the study, and contains recommended procedures for improving the recruitment and selection of potential industrial arts teachers.

CHAPTER II

THE INSTITUTIONS REPORT

In order to permit comparisons among various sectors of the population to be made in analysing and reporting data, divisions were established based upon the geographic location and size of the industrial arts teacher education enrollment.

The number of institutions offering industrial arts teacher education curricula in each state was entered in the appropriate location on a map of the United States (Figure 1, page 15). The country was divided into four regions each containing approximately one quarter of the total number of institutions. No state was divided between two regions. The regions which resulted are:

Region I (northern) 52 institutions 15 states

Maine
New Hampshire
Massachusetts
Rhode Island
Connecticut
New York
New Jersey
Maryland
Pennsylvania
West Virginia
Ohio
Indiana
Illinois
Michigan
Wisconsin

Region II (southern) 51 institutions 11 states

Virginia
North Carolina
South Carolina
Georgia
Florida
Alabama
Mississippi
Louisiana
Arkansas
Tennessee
Kentucky

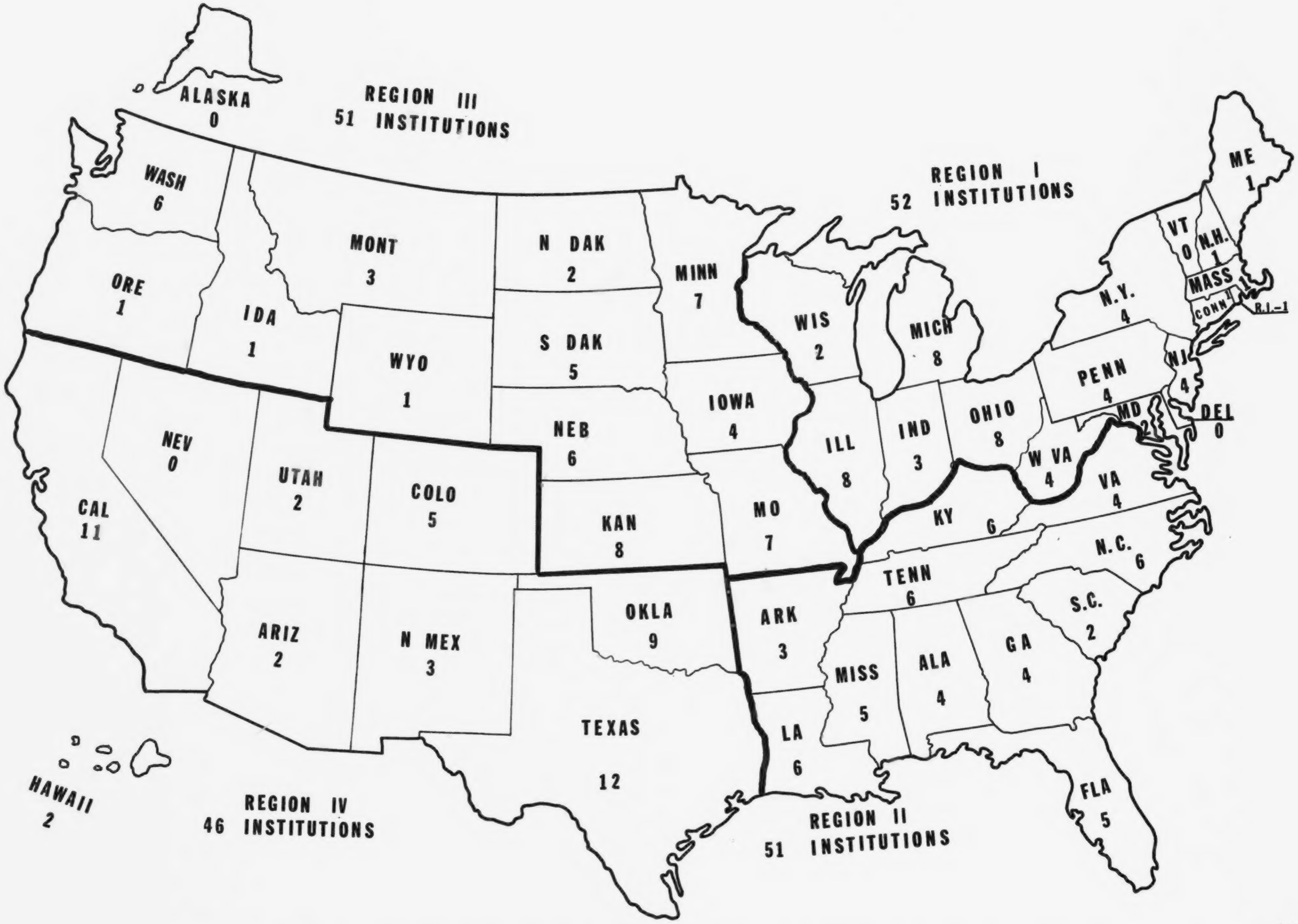
ALASKA 0
REGION III
51 INSTITUTIONS
REGION I
52 INSTITUTIONS
REGION IV
46 INSTITUTIONS
REGION II
51 INSTITUTIONS
WASH 6
ORE 1
CAL 11
NEV 0
IDA 1
MONT 3
WYO 1
UTAH 2
COLO 5
ARIZ 2
N MEX 3
N DAK 2
S DAK 5
NEB 6
KAN 8
OKLA 9
TEXAS 12
MINN 7
IOWA 4
MO 7
ARK 3
LA 6
WIS 2
ILL 8
MICH 8
IND 3
OHIO 8
KY 6
TENN 6
MISS 5
ALA 4
GA 4
FLA 5
S.C. 2
N.C. 6
VA 4
W VA 4
MD 2
DEL 0
NJ 4
PENN 4
N.Y. 4
VT 0
N.H. 1
MASS 1
CONN 1
R.I.–1
ME 1
HAWAII 2

Figure 1. Geographic Location of Institutions Offering Industrial Arts Teacher Education

Region III (central-northwestern) 51 institutions 12 states

Minnesota
Iowa
Missouri
Kansas
Nebraska
South Dakota
North Dakota
Montana
Wyoming
Idaho
Oregon
Washington

Region IV (southwestern) 46 institutions 8 states

Oklahoma
Texas
New Mexico
Colorado
Utah
Arizona
California
Hawaii

No institutions offering industrial arts teacher education curricula were located in the District of Columbia, Delaware, Vermont, Nevada, or Alaska.

The size division was based upon the data reported[31] on the second questionnaire regarding the enrollment of students in industrial arts teacher education curricula. Each institution was ranked by total reported industrial arts teacher education enrollment including both full time and part time students.

Those twenty-nine institutions which reported fewer than sixty industrial arts teacher education students were designated as small. This represented approximately the first quartile of institutions which responded to the second questionnaire. Those twenty-nine institutions which reported two hundred or more industrial arts teacher education students, the fourth quartile, were designated as large. In the second and third quartiles were sixty-four institutions which reported between sixty and 199 students enrolled in industrial arts teacher education. These were designated as medium.

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[31] Based upon 122 questionnaires. One hundred thirty-three department heads responded, but six returns were unusable and five others were too late to be used in determining department size divisions.

Table I, page 18, shows the distribution of institutions offering industrial arts teacher education arranged by size and by geographic location.

Most Effective Recruitment Practices

Department heads in 114 institutions described 196 recruitment practices, used in recent years, which they judged to be their most effective. Those practices reported twelve or more times (frequency in parenthesis) are listed below:

1. Contacts with industrial arts teachers, especially alumni (48).
2. High school visits by college industrial arts department faculty (21).
3. College industrial arts students recruit other college and high school students (20).
4. Career days, open house, or conference activities for high school pupils on college campus (17).
5. College sponsors industrial arts contests for high school pupils (12).
6. Contacts with high school guidance counselors (12).

TABLE I

DISTRIBUTION OF INSTITUTIONS OFFERING INDUSTRIAL ARTS TEACHER EDUCATION BY SIZE AND GEOGRAPHIC LOCATION

Size[a]		Geographic Location[b]				
		Region I	Region I	Region III	Region IV	Total
Small Under 60	Number of Institutions	1	15	10	3	29
	Total I.A.T.E. Students	38	567	340	142	1,087
	1st Year I.A.T.E. Students	12	196	100	39	347
Medium 60 to 199	Number of Institutions	14	14	19	17	64
	Total I.A.T.E. Students	1643	1232	1920	1551	6,346
	1st Year I.A.T.E. Students	510	440	653	513	2,116
Large 200 or More	Number of Institutions	16	1	6	6	29
	Total I.A.T.E. Students	6161	310	1765	2350	10,586
	1st Year I.A.T.E. Students	1786	93	466	703	3,048
Total	Number of Institutions	31	30	35	26	122
	Total I.A.T.E. Students	7842	2109	4025	4043	18,019
	1st Year I.A.T.E. Students	2308	729	1219	1255	5,511

[a] Size is based upon the total 1966-1967 industrial arts teacher education enrollment reported by department heads.

[b] Based upon the investigator's division of the original two hundred institutions into four approximately equal groups: Region I, northern states; Region II, southern states; Region III, central-northwestern states; Region IV, southwestern states.

7. Modern facilities and programs attract high school pupils and their parents during visits to college (12).

Additional practices listed below were described by at least one college industrial arts department chairman as a most effective recruitment practice.

8. Junior college visits by college industrial arts department faculty (11).

9. Distribution of brochures to high school and junior college students (7).

10. Scholarships for industrial arts college programs (7).

11. Contacts with own college freshmen and counselors (6).

12. Write personal letters to interested high school pupils (6).

13. College has paid recruiters traveling the state and country (4).

14. Contacts with high school supervisors and administrators made through student teaching program (3).

15. College industrial arts department offers general cultural course in "American Industries" which stimulates the interest of non-industrial arts majors (3).

16. Industrial arts teachers association brings secondary school pupils to visit the college (2).

17. College industrial education faculty points out advantages of teaching to non-teaching majors in the department (2).

18. College conducts annual recruitment conference on campus for secondary school industrial arts teachers and counselors (1).

19. Filmed presentation (slides and tape recorder) of the college departments' offerings (1).

20. High school industrial arts curriculum revision has resulted in a noticeable increase in recruits from those schools (1).

Industrial arts department heads revealed a great diversity of opinions regarding which recruitment practices were most effective in persuading young people to consider preparing for careers in industrial arts teaching. Obviously, something which works well in one situation may not be at all effective in another. Many of these practices, however, may be tried with success in colleges and universities not now using them.

Evident in the original statements, but not fully reflected in the summaries presented, was a dual concern with the problem of recruitment in general. Some respondents were concerned with the needs of the profession for additional qualified teachers; while others saw the problem in terms of their department's need, if any, for additional students.

Utilization of Recruitment Practices

Specific recruitment practices used during the 1965-1966 academic year were reported by 132 institutions. Five practices were utilized by more than half of the respondents. The frequency reported is shown in parenthesis.

1. Conducted visits to college campus (94).

2. Conducted visits to industrial arts facilities (93).

3. Sent booklets describing industrial arts teacher education (92).

4. Sent booklets describing teaching careers (74).

5. Made speeches about industrial arts teaching (73).

Five other practices were reported by less than half of the department heads, and 30 per cent of them wrote in additional practices.

6. Sent booklets describing college activities (55).

7. Showed slide films of college campus and/or industrial arts facilities (40).

8. Showed motion pictures of college campus and/or industrial arts facilities (30).

9. Wrote newspaper or magazine articles about teaching or teachers (26).

10. Participated in radio or T.V. programs about teaching or teachers (15).

11. Other activities, write-in responses (40).

Write-in responses included participation in college or high school career days; conducting various types of exhibits, fairs or contests for industrial arts pupils; and contacts with teachers and guidance counselors.

Pupils in grades ten through twelve were reported to be the focus of 50 per cent of the total number of recruitment practices reported by colleges. The remainder of the recruitment efforts were used with: (a) community or junior college students, 22 per cent; (b) other college students, 16 per cent; (c) pupils in grades seven through nine, 10 per cent; and (d) pupils in grade six or lower, 2 per cent.

Many groups of people have an interest in, and share the responsibility for, the recruitment of potential industrial arts teachers. Department heads reported on the type and scope of groups with whom cooperative recruitment programs were conducted during the 1965-1966 academic year. An average of 6.4 cooperative programs per institution were reported by 128 department heads.[32] Industrial arts teachers were identified most frequently (211 times) as the cooperating groups. Other frequently reported groups were: (a) guidance personnel, 131 times; (b) school administrators, 120 times; (c) other colleges, 97 times; and (d) secondary school industrial arts clubs, 91 times. Four other groups were reported less often. Most of the groups identified as participants in cooperative recruitment programs were state wide in scope or smaller. Very few colleges reported participation in recruitment on a regional or national basis.

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[32] Some of the frequencies reported for a single type of group exceed the number of institutions which reported (128). This was possible because the respondents were asked to report the scope of the groups with which the cooperative recruitment programs were conducted. Thus, a single department might have reported cooperation with a local industrial arts teachers group and also with a state wide industrial arts teachers association.

Entry Levels to Industrial Arts Teacher Education

Department heads reported that 94 per cent of the students admitted to industrial arts teacher education in 1965 entered as full time students. One hundred ten respondents reported a total of 6,363 new full time students. Thirty-three departments reported a total of 410 new part time students.

Fifty-nine per cent of the full time students were admitted as freshmen, and 23 per cent were transfer students. Of these, 1,138 transferred from two year colleges and 328 from four year institutions. Upperclassmen from the respondents' own institutions formed the third largest group (967) of students newly admitted to industrial arts teacher education curricula. Graduate students seeking their first certification as industrial arts teachers (148) and non-matriculated special students (27) comprised the remainder of the new full time students.

Important geographic variations in the entry level of new students were noted. In Region IV, southwestern, new transfer students from two year colleges outnumbered freshmen 474 to 399. Region III, central-northwestern, reported the largest group of upperclassmen admitted as new students in industrial arts curricula at their own institutions.

Admission to Industrial Arts Teacher Education

Criteria used for admission to the colleges and to their industrial arts teacher education curricula were reported by 143 institutions. Department heads indicated which of six admission criteria were used for freshman applicants and for transfer students or students with advanced standing. The criteria reported on were:

1. High school graduation or equivalent required;
2. Required high school subjects;
3. Minimum acceptable high school rank in class;
4. Minimum acceptable high school scholastic average;
5. Minimum acceptable college scholastic average, transfer applicants or students with advanced standing; and
6. Admission examinations.

Two findings concerning admission practices stand out very clearly. First, scholastic admission requirements at 96 per cent of the colleges were reported to be uniform for all curricula within the institution. Second, criteria for admission to the institutions varied from open enrollment to highly selective admission requirements.

Capacity of Colleges to Accept Additional Qualified Applicants

Department heads reported on their capacity to admit additional new students to industrial arts teacher education curricula with present facilities and faculty, assuming qualified applicants had been available. Seventy-five reported that they could accept additional applicants. Twenty-five could accept no more, but had turned none away. Five reported that they had turned away qualified applicants. Comparison of the total number of new full time students admitted (6,363) with the unused capacity to admit additional students reported (3,104) indicated that for every two new students admitted in 1965 there was room for one additional one.

One hundred ten department heads reported a total of 835 full time and 130 part time faculty members in industrial arts teacher education. Physical facilities at seventy-eight institutions were reportedly used at less than maximum capacity. Assuming a demand for full utilization of present facilities, these seventy-eight departments would need an estimated additional 316 full time and twenty-two part time faculty members. Region I department heads reported the greatest need for additional faculty if a demand for maximum utilization of facilities occurred.

Eighty colleges reported expansion of industrial arts teacher education facilities expected to be ready for use before January, 1970. Departments in all geographic areas and of all sizes reported expansion. A greater percentage of large departments were increasing their capacity than were medium or small ones.

The investigator was unable to describe the shortage of industrial arts teachers in terms of supply of and demand for graduates, as planned. Many department heads reported that records of the job placement of recent graduates were not kept, or were not accessible to them. Accurate data on the number and type of industrial arts teacher vacancies were not available from college department heads due to extensive duplication of requests from potential employers.

CHAPTER III

THE STUDENTS SPEAK

A questionnaire survey, of students in their first year of industrial arts teacher education curricula, identified factors which the students reported had influenced their decision to prepare for industrial arts teaching careers. A total of 270 usable student responses were returned by twelve department heads.

The distribution of student sample responses, based upon the size of industrial arts teacher education departments was close to the distribution of first year students reported in the population. See Figure 2, page 28. Small departments reported 6.3 per cent of the first year student population, and returned 4.8 per cent of the student sample questionnaires. Medium sized departments reported 38.4 per cent of the population and made up 44.1 per cent of the sample returns. Large departments reported 55.3 per cent of the population and 51.1 per cent of the sample. Geographically, Region II and Region III were under-represented in the sample returns because two departments which failed to respond to the student survey were from those regions. Usable responses (270) to the survey constituted a stratified sample including 5 per cent of the students reported to be in the

DISTRIBUTION OF FIRST YEAR INDUSTRIAL ARTS TEACHER EDUCATION STUDENTS IN THE POPULATION IN THE SAMPLE SURVEYED

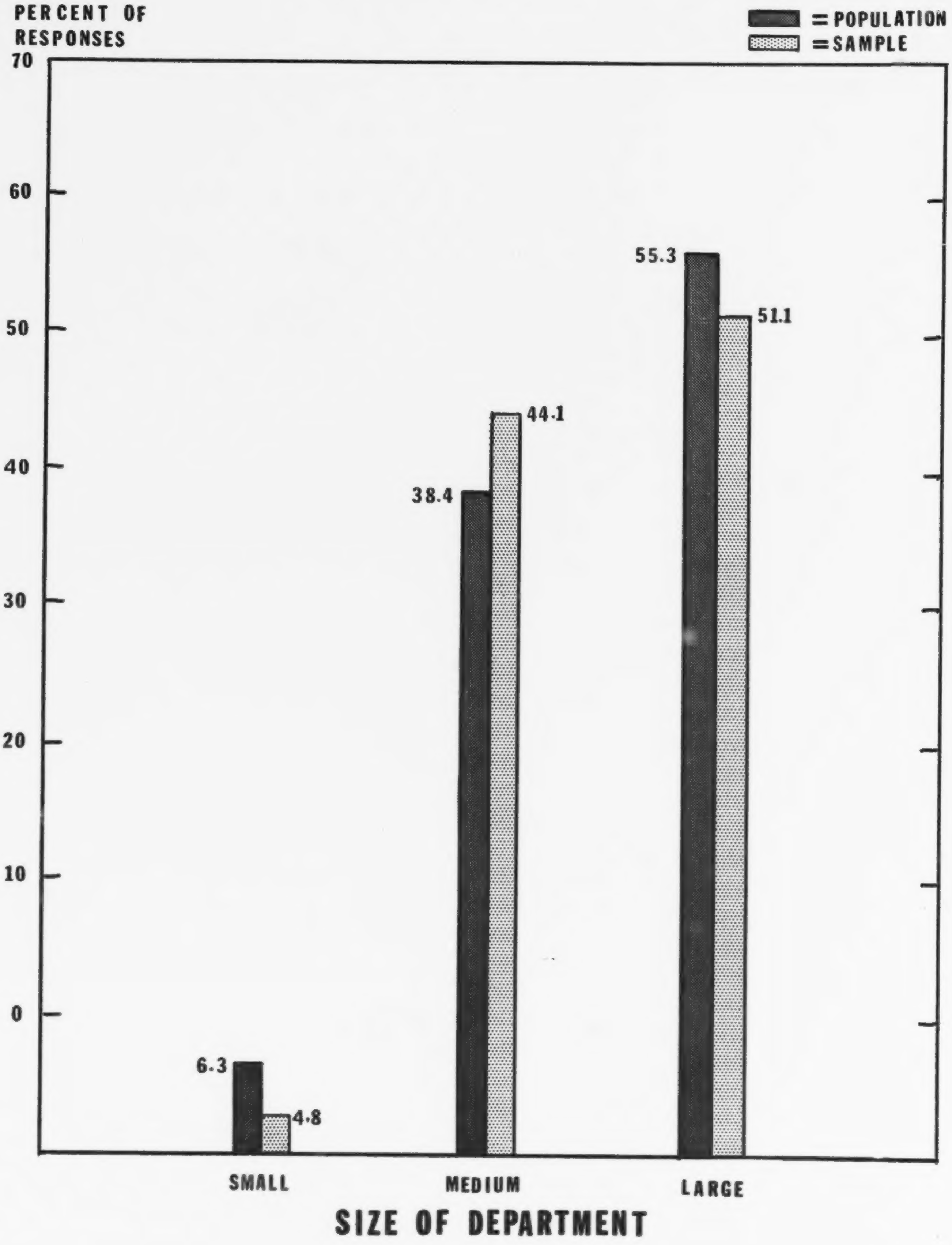

FIG. 2

first year of industrial arts teacher education curricula.

Description of Students Surveyed

Full time students constituted 96 per cent of the sample. Forty per cent were admitted as new freshmen and 49 per cent started as transfer students. The remainder were admitted to industrial arts teacher education with advanced standing in their own institutions, as graduate students, or as special students.

All respondents included in the sample indicated that they had begun their first year of an industrial arts teacher education curriculum between January, 1966 and February, 1967. Ninety-nine per cent of the respondents were male. The median age reported was twenty, and the range was from eighteen to forty-six years, inclusive (Figure 3, page 30). Three per cent of the respondents were foreign born and 22 per cent of the native students reported at least one foreign born parent. Seventy-six per cent reported their marital status as single.

While attending college 41 per cent of the students lived in the homes of their parents or guardians. Thirty-four per cent reported residence in dormitories or other college approved housing, and 20 per cent maintained their own homes (Figure 4, page 31). Fifty-eight per cent reported that they were financial dependents of their parents or others, while the remainder claimed to be supporting themselves. Half of the self-supporting students reported one

AGE OF STUDENTS
AT TIME OF SURVEY

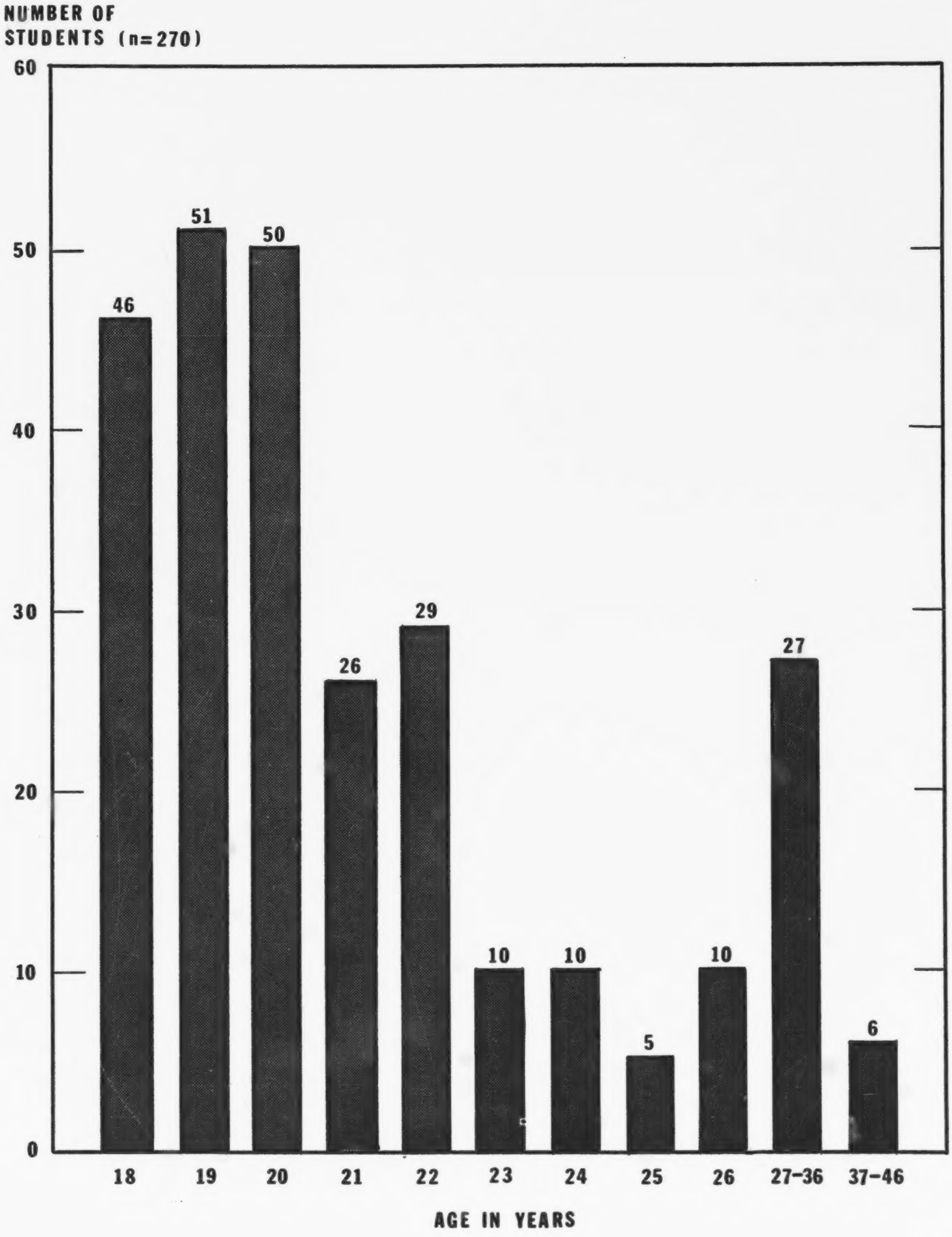

FIG. 3

COLLEGE RESIDENCE
OF STUDENTS SURVEYED

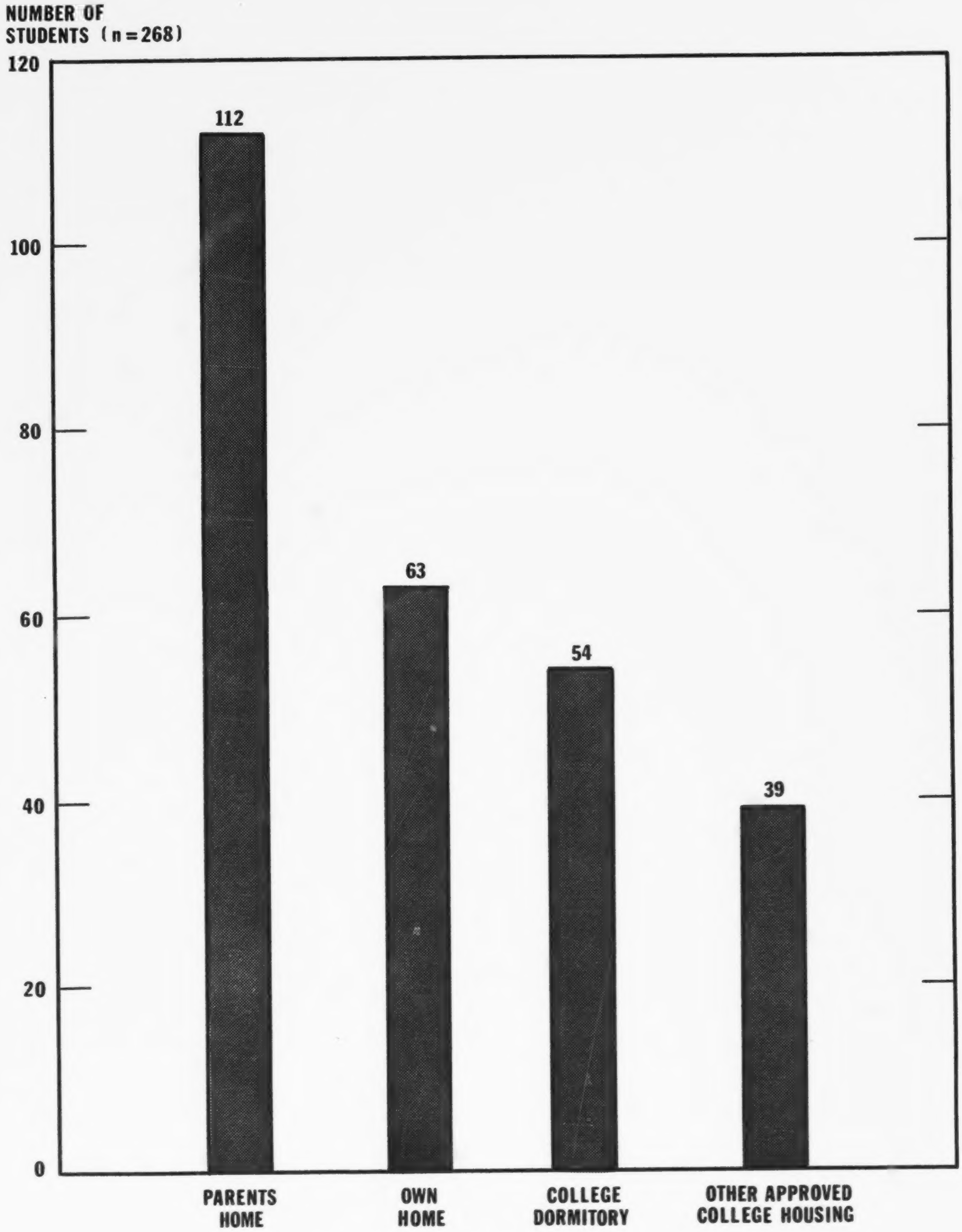

FIG. 4

or more additional dependent (Figure 5, page 33). Full time students who were gainfully employed while attending classes made up 57 per cent of the sample (Figure 6, page 34).

Eighty-eight per cent reported that all or part of their yearly college expenses were paid for from their own earnings or savings. Parents (guardians) or other relatives paid all or part of the yearly expenses for 67 per cent of the students. Twenty-one per cent of the respondents reported having received a scholarship or other financial grant. College loans were used by 15 per cent of the students to pay all or part of their education expenses (Figure 7, page 35).

Respondents indicated the highest level completed in school by either parent (Figure 8, page 36). Eighty-one per cent were working toward a higher educational level than that attained by either parent. Relatives who were, or had been, teachers were reported by 38 per cent of those who responded (Figure 9, page 37).

Initial Interest in Teaching Industrial Arts

Two hundred sixty-one students reported on when they had first developed interest in becoming industrial arts teachers. Figure 10, page 38, shows that only eighteen (6.9 per cent) reported having this interest in junior high school (grades seven through nine) or earlier. One hundred six (40.6 per cent) became interested in teaching industrial

FINANCIAL STATUS OF STUDENTS SURVEYED

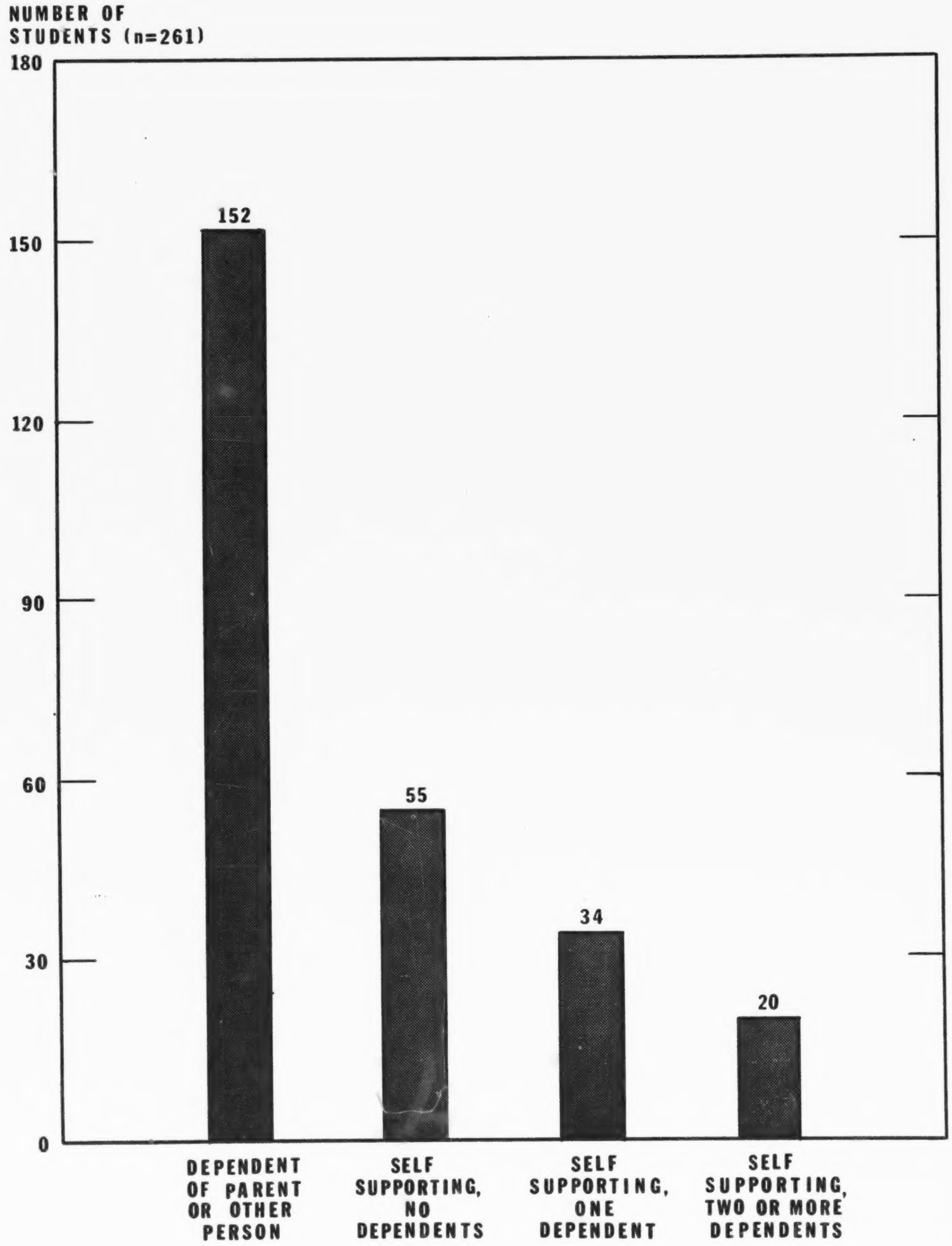

FIG. 5

OUTSIDE EMPLOYMENT WHILE ATTENDING CLASSES, FULL TIME STUDENTS ONLY

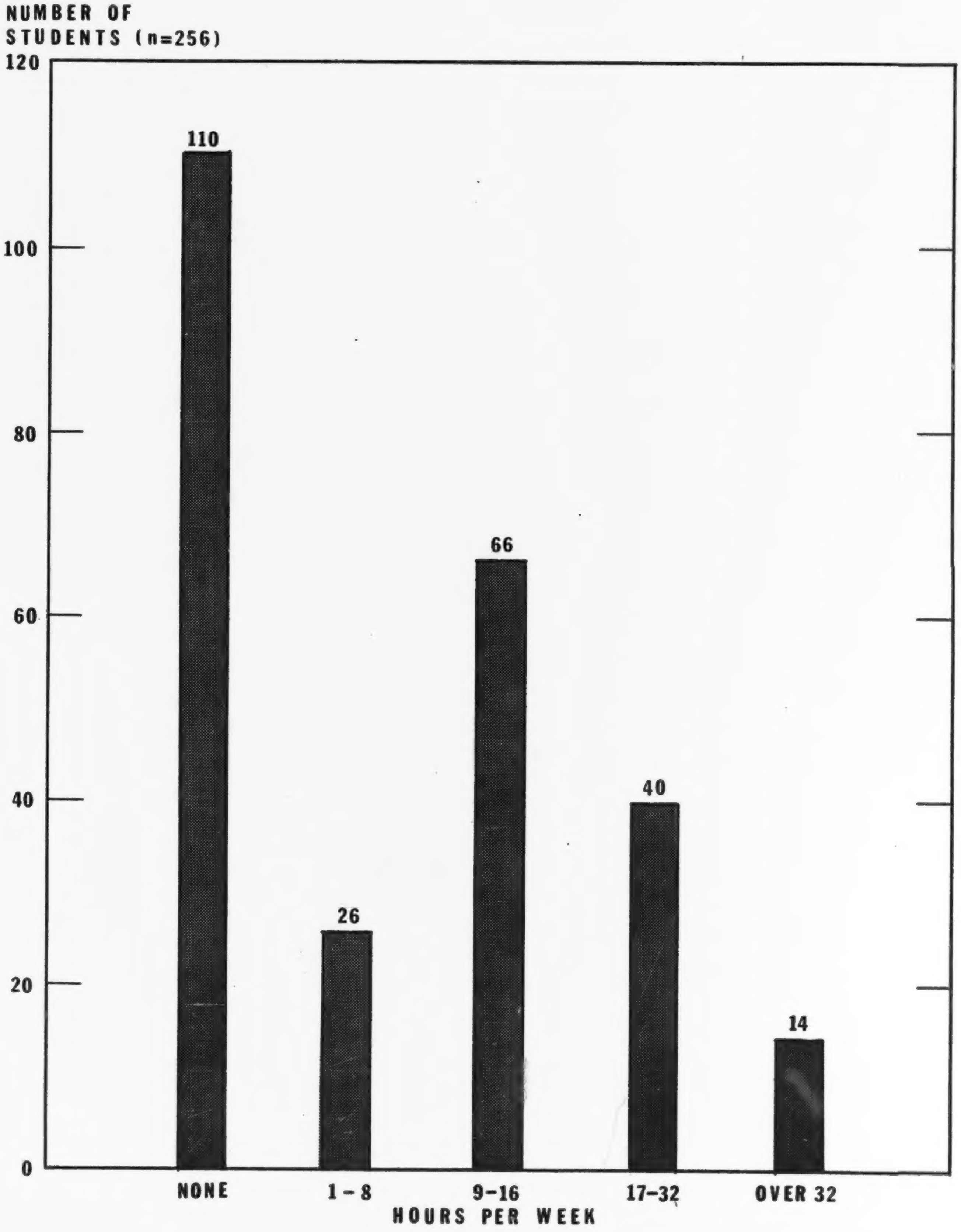

FIG. 6

SOURCES OF FUNDS USED TO PAY COLLEGE EXPENSES, FULL TIME STUDENTS ONLY

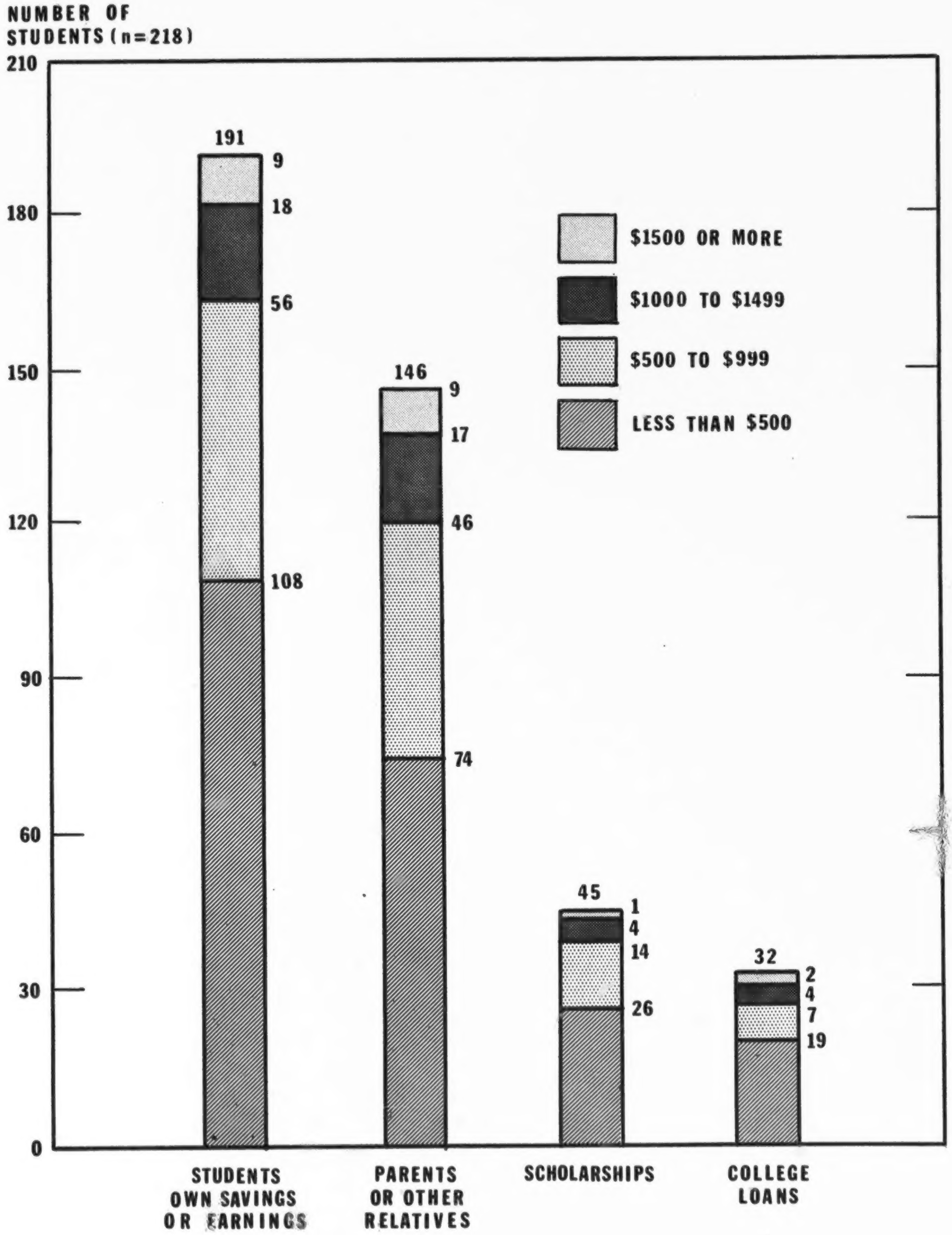

FIG. 7

HIGHEST LEVEL OF EDUCATION COMPLETED BY EITHER PARENT OF STUDENTS SURVEYED

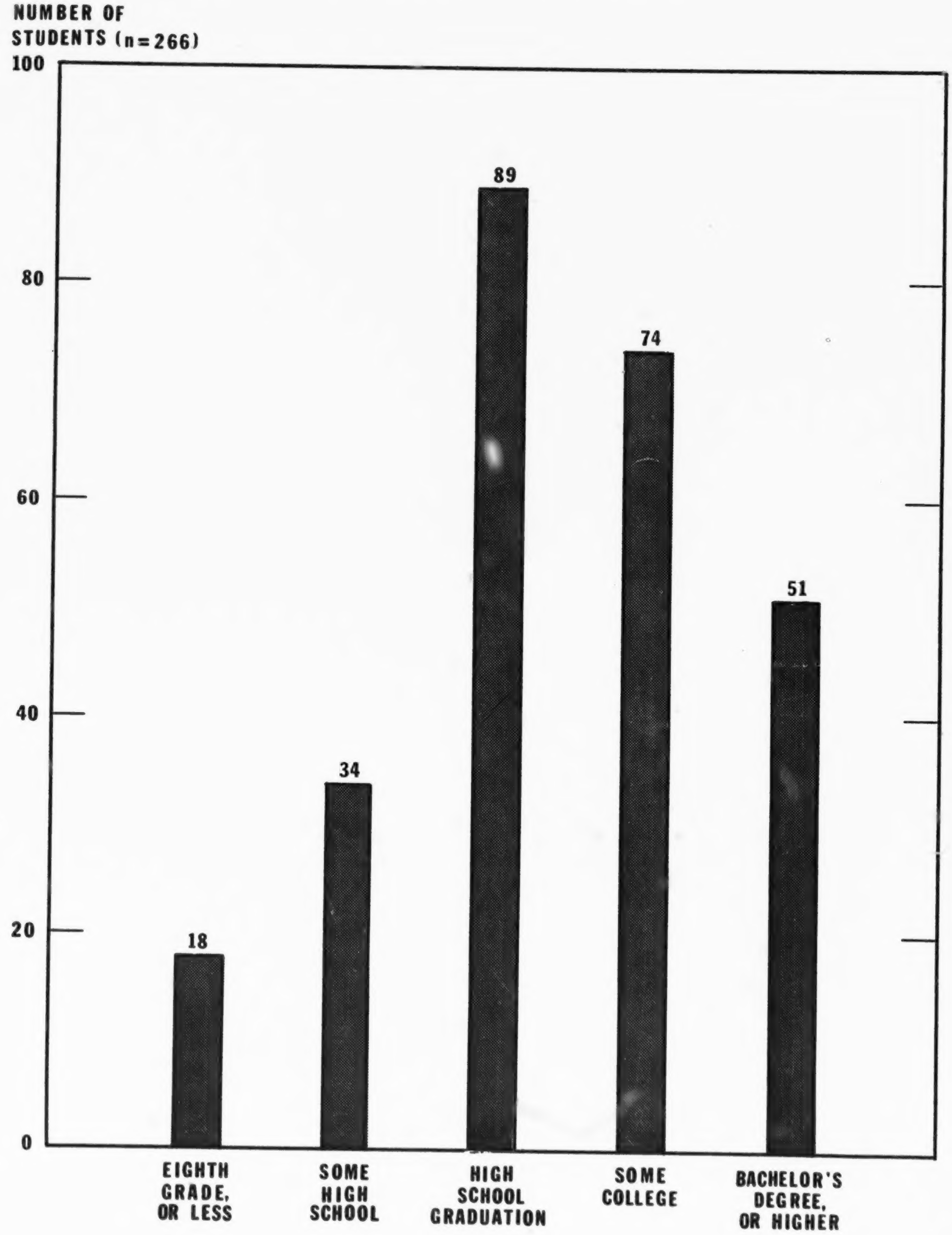

FIG. 8

RELATIVES OF STUDENTS SURVEYED WHO WERE TEACHERS, OR HAD TAUGHT PREVIOUSLY

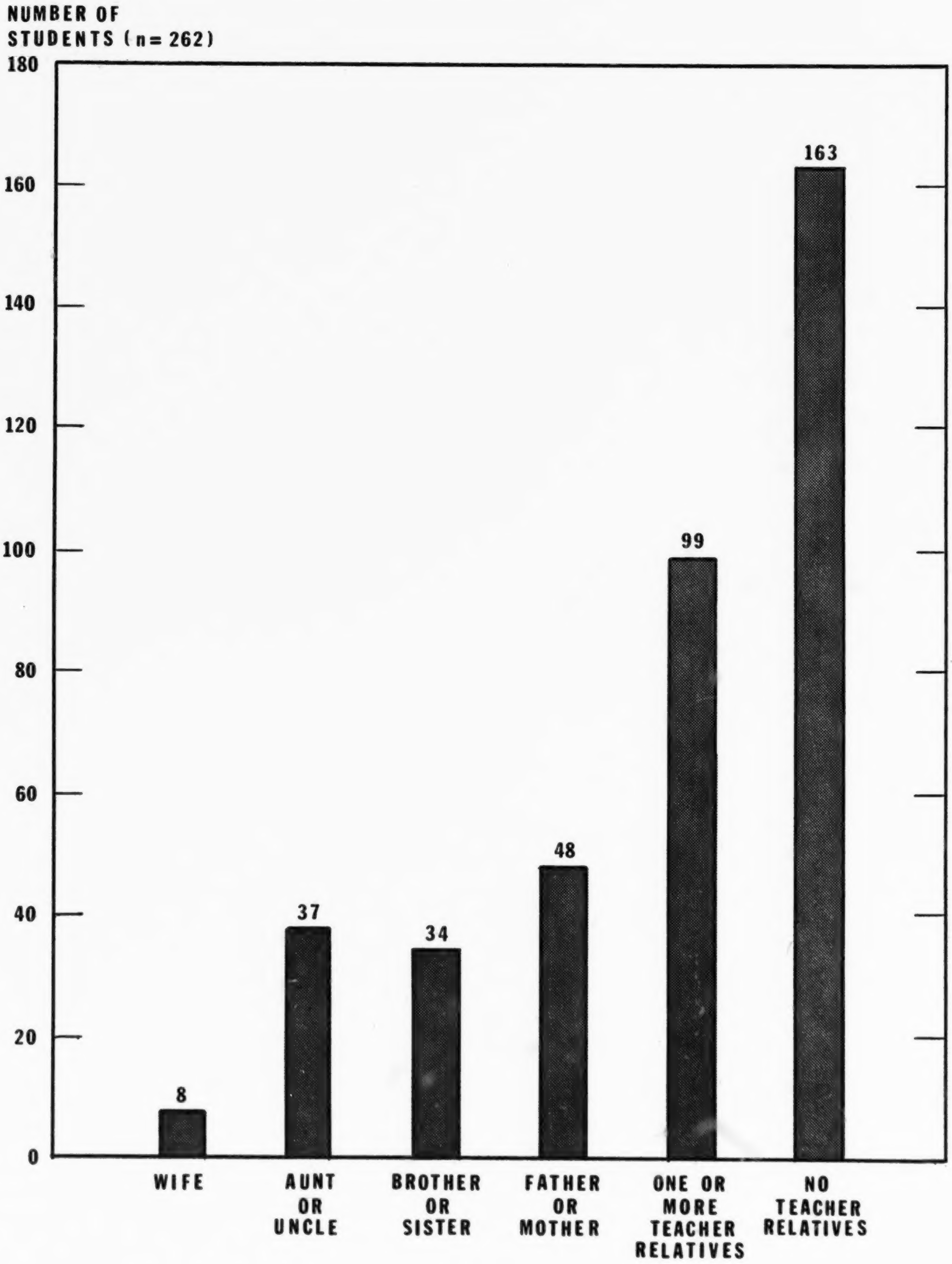

FIG. 9

TIME OF STUDENTS FIRST INTEREST IN TEACHING INDUSTRIAL ARTS

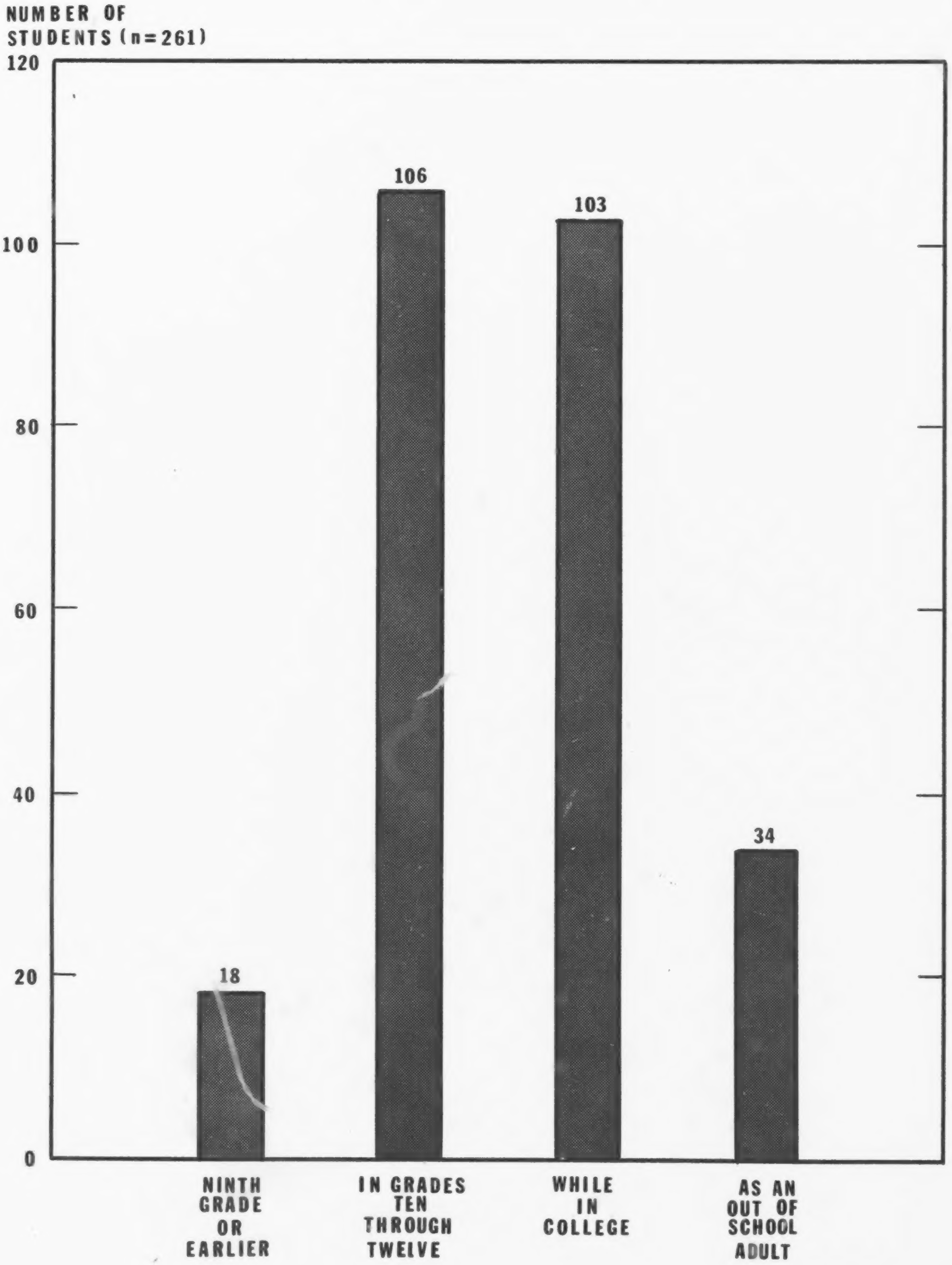

FIG. 10

arts while in high school (grades ten through twelve). Almost as many (103) students reported that they first became interested in this career choice while in college. None reported having first developed an interest in teaching industrial arts during graduate studies. Thirty-four (13.0 per cent) first thought of this career when they were out of school adults.

If the out of school adults are considered separately, a little more than half (55.1 per cent) of the students first considered industrial arts teaching careers before graduating from high school. On this point, however, there is a definite regional variation. In Region I sixty-eight students reported having an interest in becoming industrial arts teachers before graduation from high school and only seven reported developing their first interest during college. In contrast, in Region IV the comparable figures were forty-six students before high school graduation and eighty-one students during college. There was little variation among students from colleges with different sized industrial arts teacher education departments.

Decision to Prepare for Industrial Arts Teaching

Figure 11, page 40, presents data reported by the students concerning the time of their decisions to prepare for industrial arts teaching. Six of the 259 respondents (2.3 per cent) had decided to prepare for careers as

TIME OF STUDENTS DECISION TO PREPARE FOR AN INDUSTRIAL ARTS TEACHING CAREER

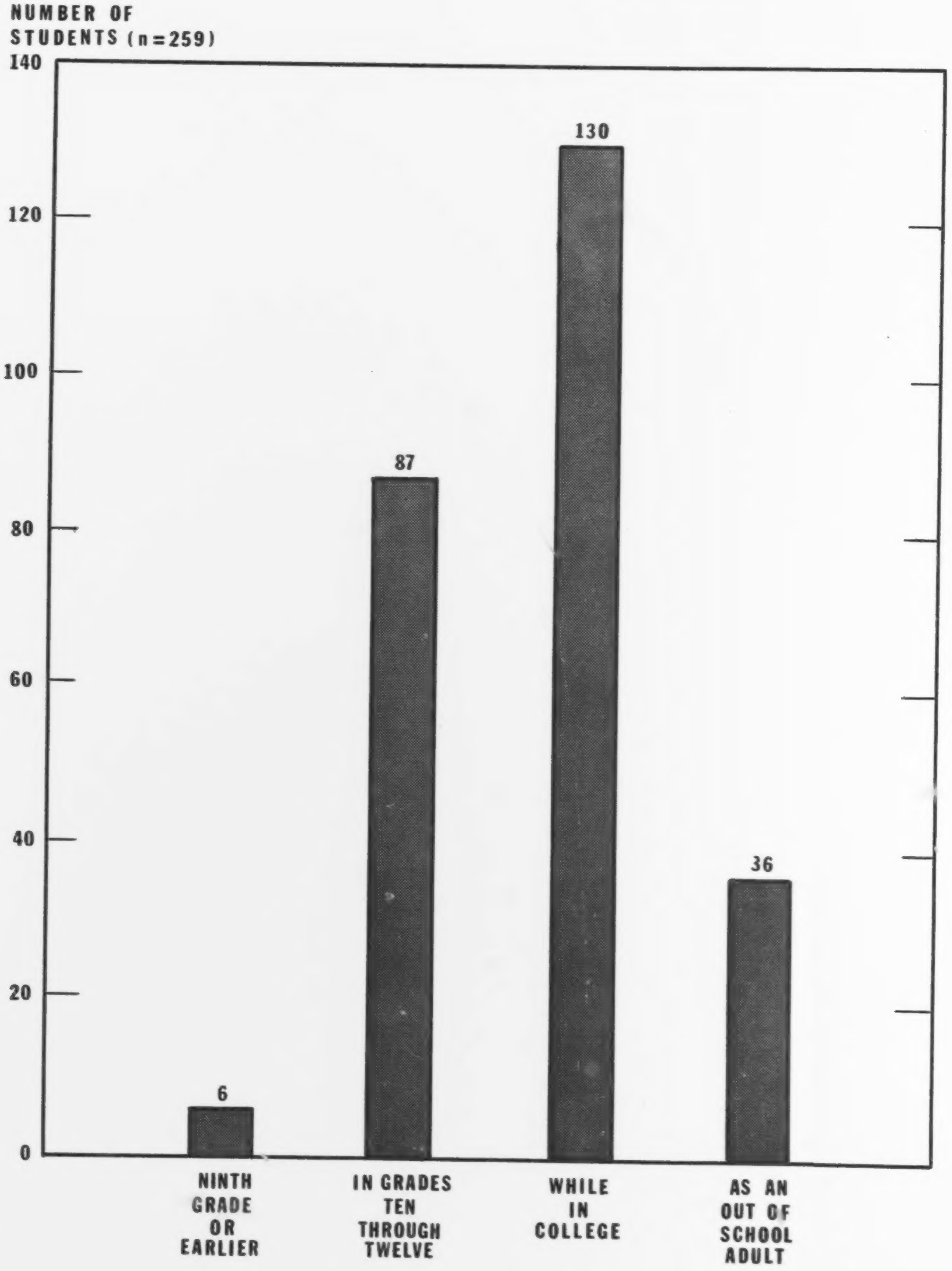

FIG.11

industrial arts teachers at, or before, junior high school age (ninth grade or earlier); and eighty-seven (33.6 per cent) had made the same decision while in high school (grades ten through twelve). One hundred thirty (50.2 per cent) were in college before they decided on this career. Thirty-six (13.9 per cent) were out of school adults when they decided to prepare for industrial arts teaching. The time of the decision to prepare for industrial arts teaching showed the same regional variation as was noted in the consideration above of the students' first interest in this career. In Region I fifty-six students reported that they had decided to prepare to teach industrial arts before starting college. Fourteen decided while in college. In Region IV only twenty-nine made this decision before starting college, while ninety-nine did so during college.

Desire to Teach and Type of Position Sought

Student respondents were asked to indicate their degree of commitment to teaching industrial arts, assuming successful completion of the curriculum, and their preference regarding the type of school in which they would like to begin their teaching career. Responses to these items are presented in Figure 12, page 42 and Figure 13, page 43. One hundred twenty-four (46.6 per cent) of the students definitely planned to teach industrial arts if they successfully completed the curriculum. Another seventy-nine (29.7

DEGREE OF COMMITMENT TO TEACHING INDUSTRIAL ARTS AMONG STUDENTS SURVEYED

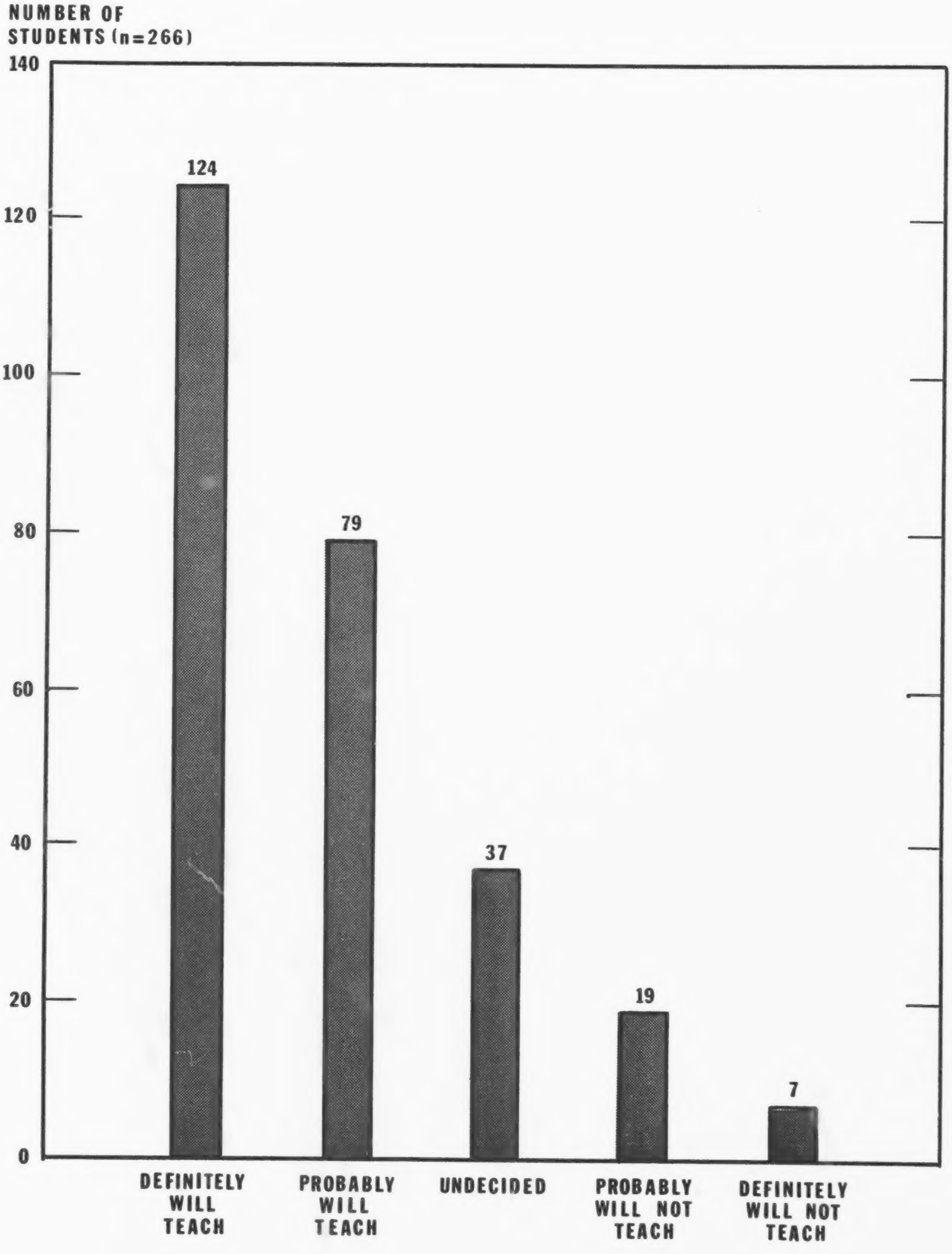

FIG.12

TYPE OF SCHOOL PREFERRED FOR FIRST TEACHING ASSIGNMENT BY STUDENTS SURVEYED

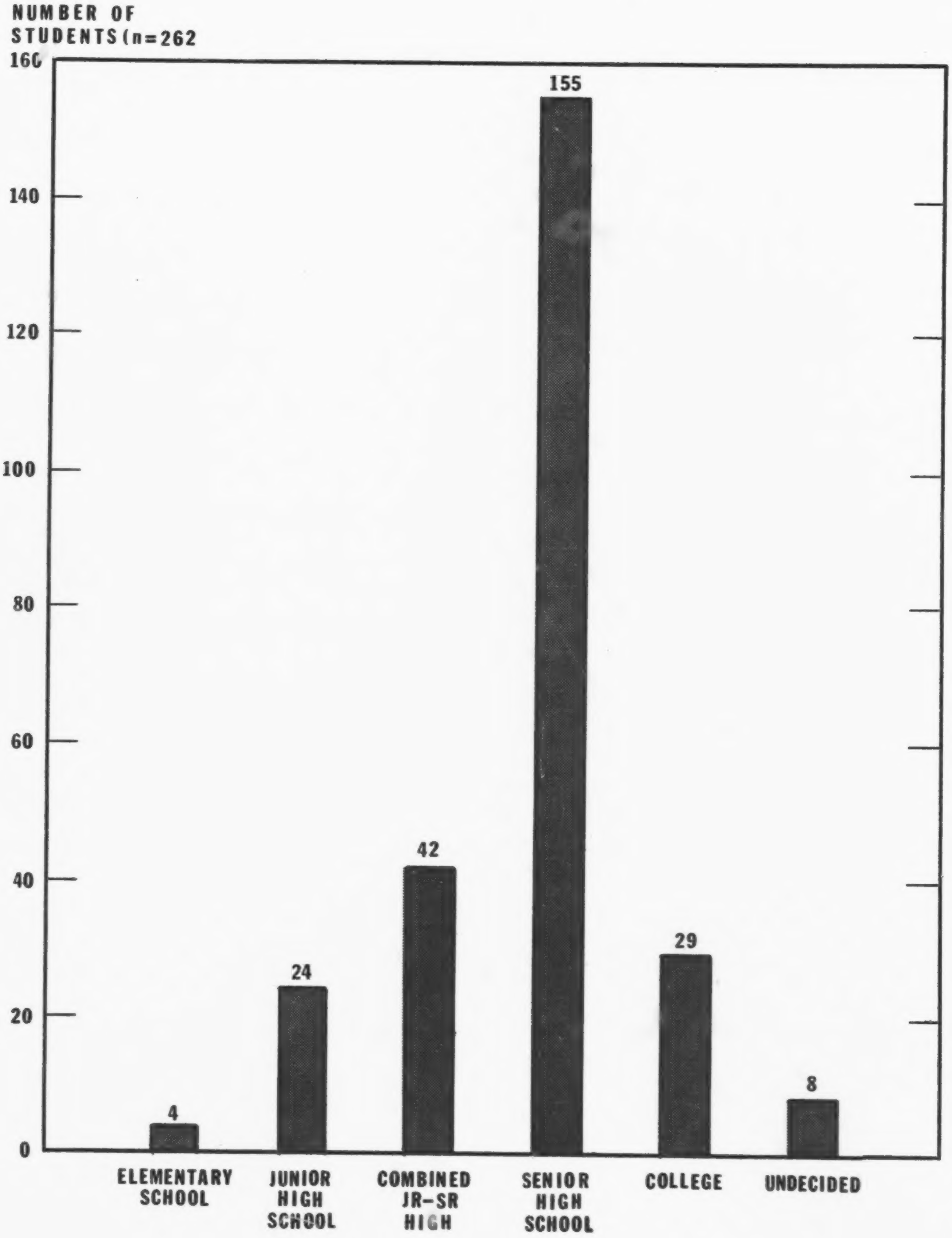

FIG. 13

per cent) indicated that they probably would teach industrial arts. Thirty-seven (13.9 per cent) were undecided. Nineteen students (7.1 per cent) indicated that they probably would not teach and seven others (2.6 per cent) definitely did not plan to teach industrial arts. Variations in the patterns of response from departments of different size and geographic location were small.

Figure 13, page 43, illustrates the responses to the question, "If you teach industrial arts, in what type of school would you prefer to begin your teaching career?" While the answer to this question may not be a reliable indicator of the type of position the student will actually seek when he completes his preparation, it may give an indication of the type of position which is attractive to him as he enters the curriculum. Four students (1.5 per cent) expressed an interest in elementary school industrial arts. Twenty-four (9.2 per cent) indicated a preference for junior high school positions. Forty-two (16.0 per cent) indicated that they would prefer to begin teaching in a combination junior-senior high school. One hundred fifty-five students (59.2 per cent) would prefer to teach industrial arts at the high school level. Twenty-nine (11.3 per cent) would like to start teaching in college. Eight (3.1 per cent) were undecided and checked more than one choice. Five of the undecided respondents indicated a preference for a combination junior-senior high or senior high school. Two others wanted to start either in high school or college, and one preferred to begin in either junior high school or college.

People Who Influenced Students Career Decisions

Two categories of persons which more than half of the respondents reported had influenced their career decisions were parents (60 per cent) and industrial arts teachers in grades ten through twelve (57 per cent). See Figure 14, pages 46-47. Five additional groups of persons indicated as influential by more than one-third of the students were: (a) college industrial arts students; (b) college professors or representatives; (c) friends of their own age; (d) neighbors and other adults; and (e) guidance counselors in grades ten through twelve. Ten other categories of persons were reported by less than one-third of the respondents as having influenced the decision to prepare for industrial arts teaching.

Sixty-eight students reported that "secondary school persons other than teachers and counselors" had influenced them. Of these respondents, nineteen indicated a coach; seventeen, a principal; three, an assistant principal; and one, a club advisor as influential in their career decisions. Thirty-one students did not identify the school persons who had influenced them.

Thirty-eight respondents reported that "other persons"

INFLUENCE OF VARIOUS PERSONS ON THE CAREER DECISIONS OF STUDENTS SURVEYED

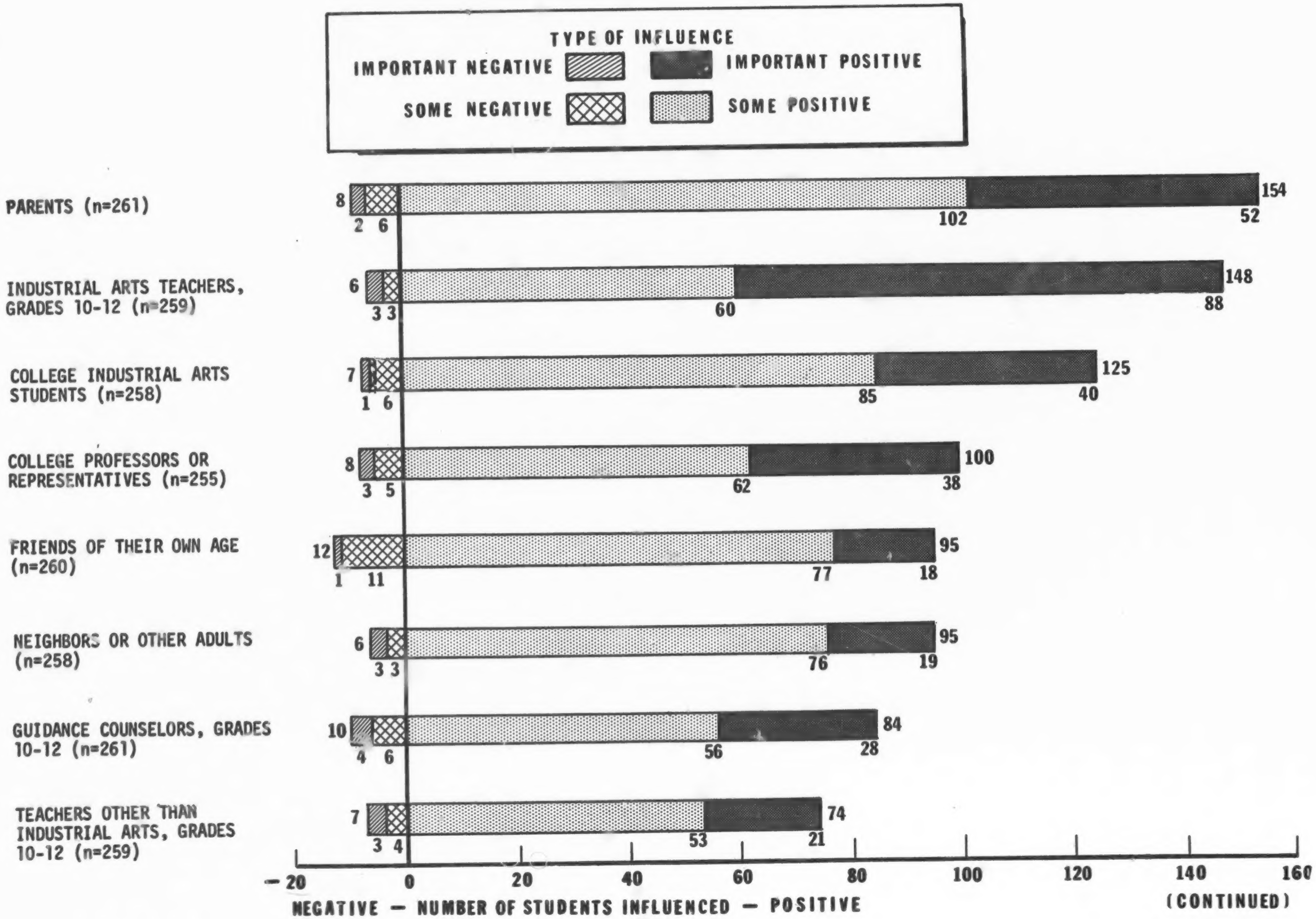

FIG. 14

(CONTINUED)

INFLUENCE OF VARIOUS PERSONS ON THE CAREER DECISIONS OF STUDENTS SURVEYED

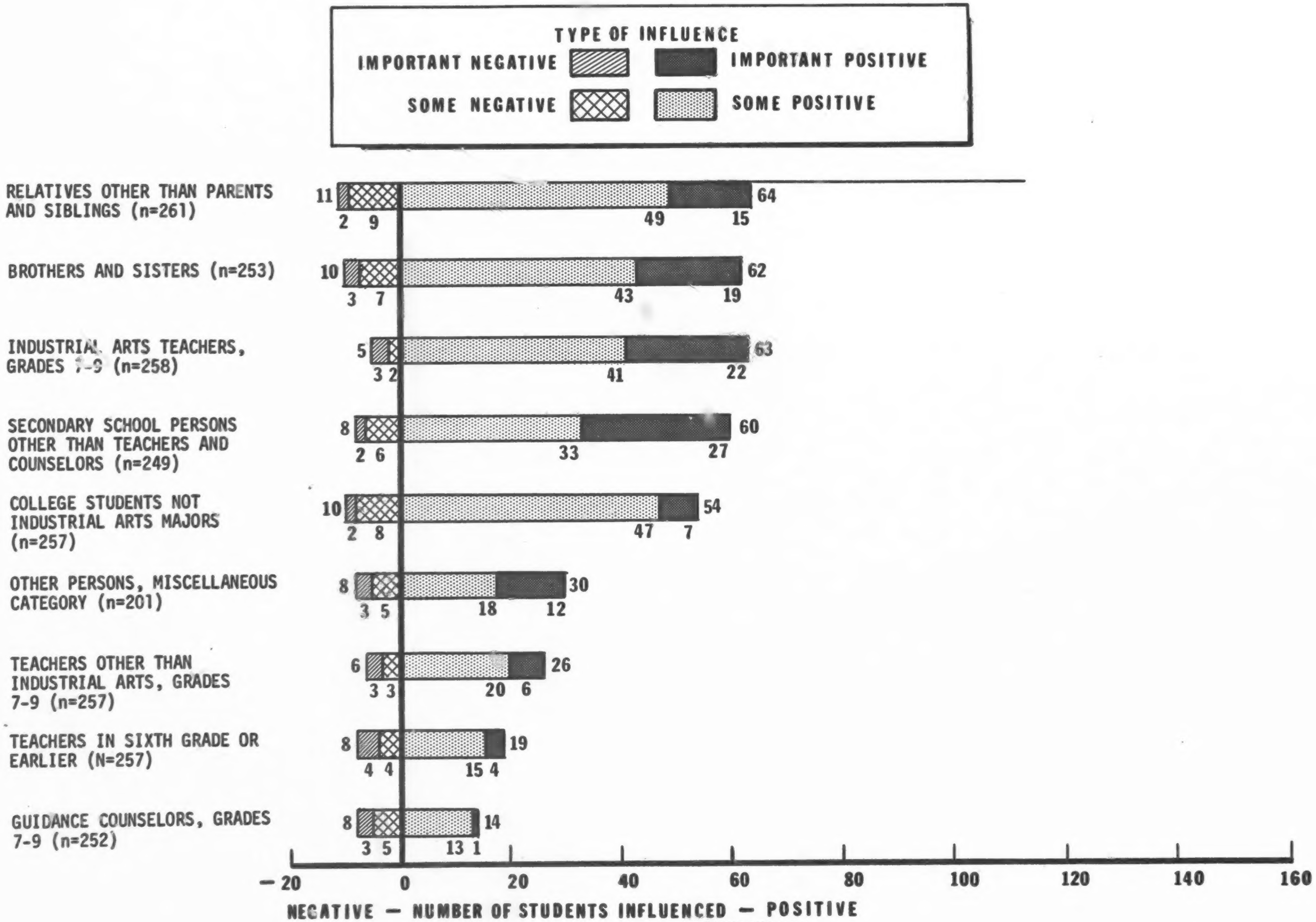

FIG.14 (CONTINUED)

had influenced their decision to prepare for industrial arts teaching. Twelve did not identify the persons and ten others reported persons more appropriately considered in one of the groups mentioned previously. The "other persons" not reported previously included college or junior college advisors, employers and people in industry, military officers and enlisted men, parish priest, rehabilitation counselor, college president, and scout master.

In Region IV, where the majority of students transferred into industrial arts curricula from two year colleges, respondents indicated considerably more influence upon their career decisions by college professors and students than did respondents from other regions. Other variations in responses among departments of different size or location were small.

Experiences Which Influenced Students Career Decisions

More than half of the students reported having been influenced by three types of experiences: (a) personal interests or hobbies, 77 per cent; (b) industrial arts classwork in grades ten through twelve, 65 per cent; and (c) visits to college industrial arts facilities, 60 per cent. See Figure 15, pages 49-51. Six additional types of experiences were reported as influential by more than one-third of the respondents. They were: (a) college technical courses; (b) read booklets describing industrial arts

INFLUENCE OF VARIOUS EXPERIENCES ON THE CAREER DECISIONS OF STUDENTS SURVEYED

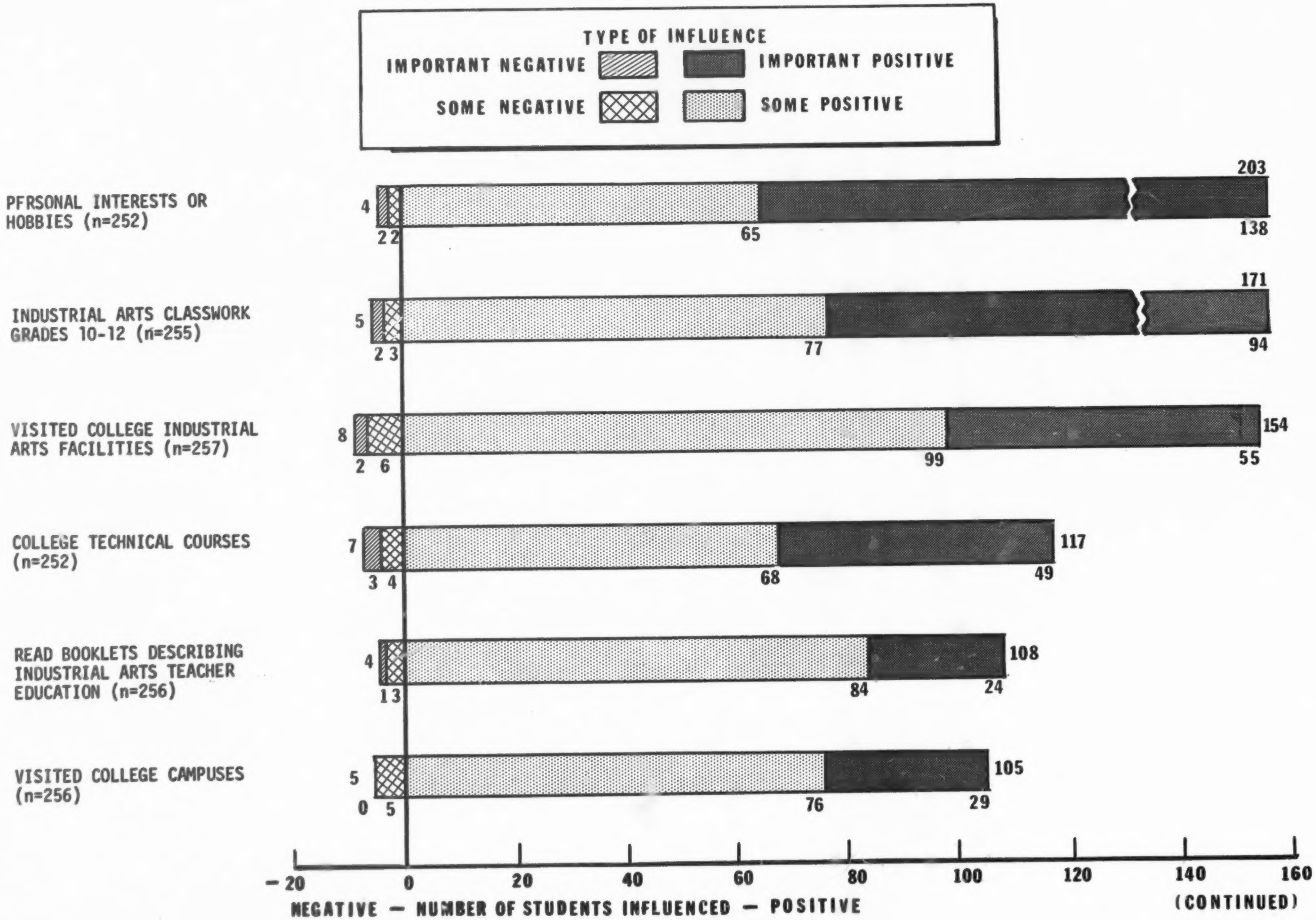

FIG. 15

2

INFLUENCE OF VARIOUS EXPERIENCES ON THE CAREER DECISIONS OF STUDENTS SURVEYED

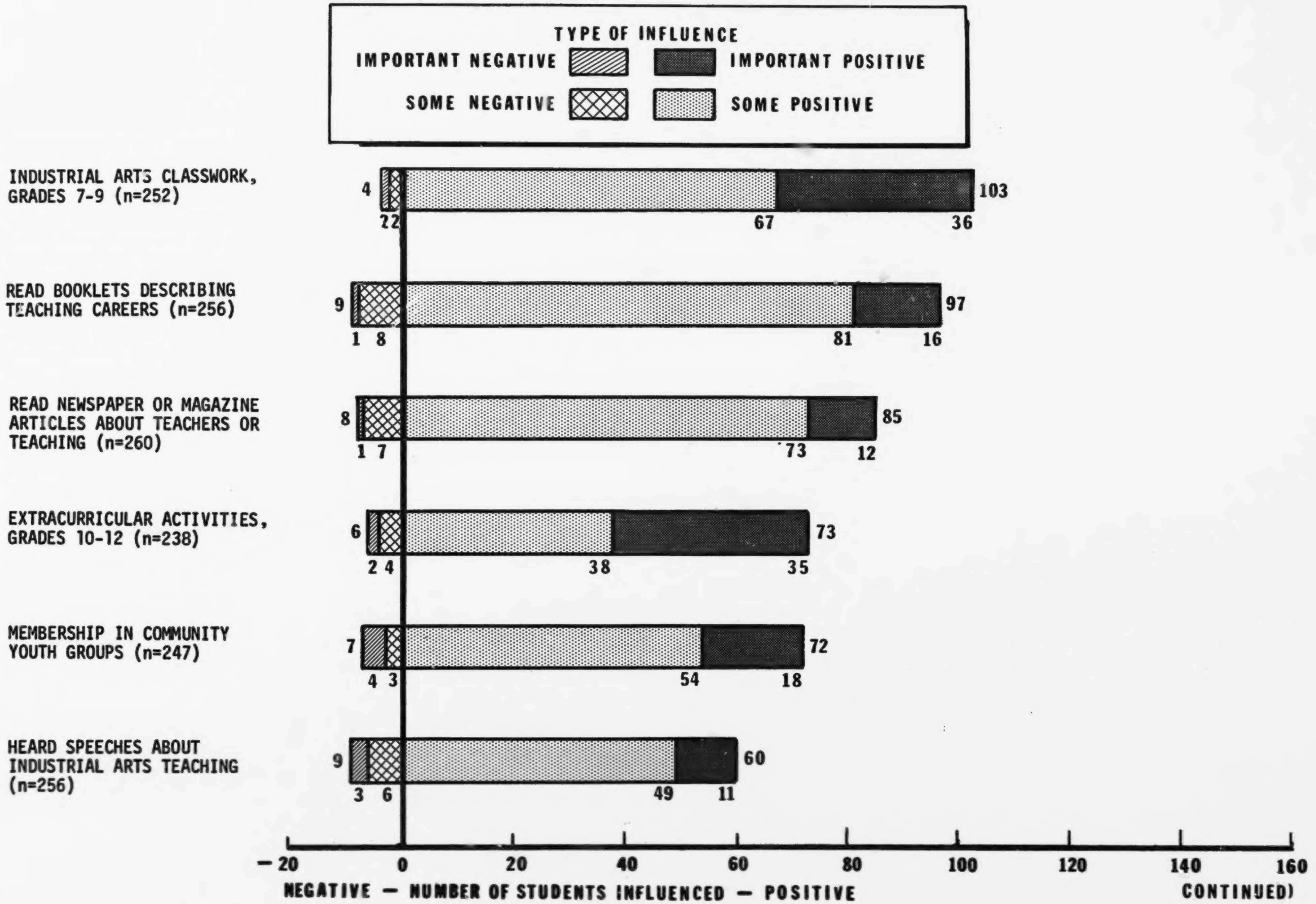

FIG.15

INFLUENCE OF VARIOUS EXPERIENCES ON THE CAREER DECISIONS OF STUDENTS SURVEYED

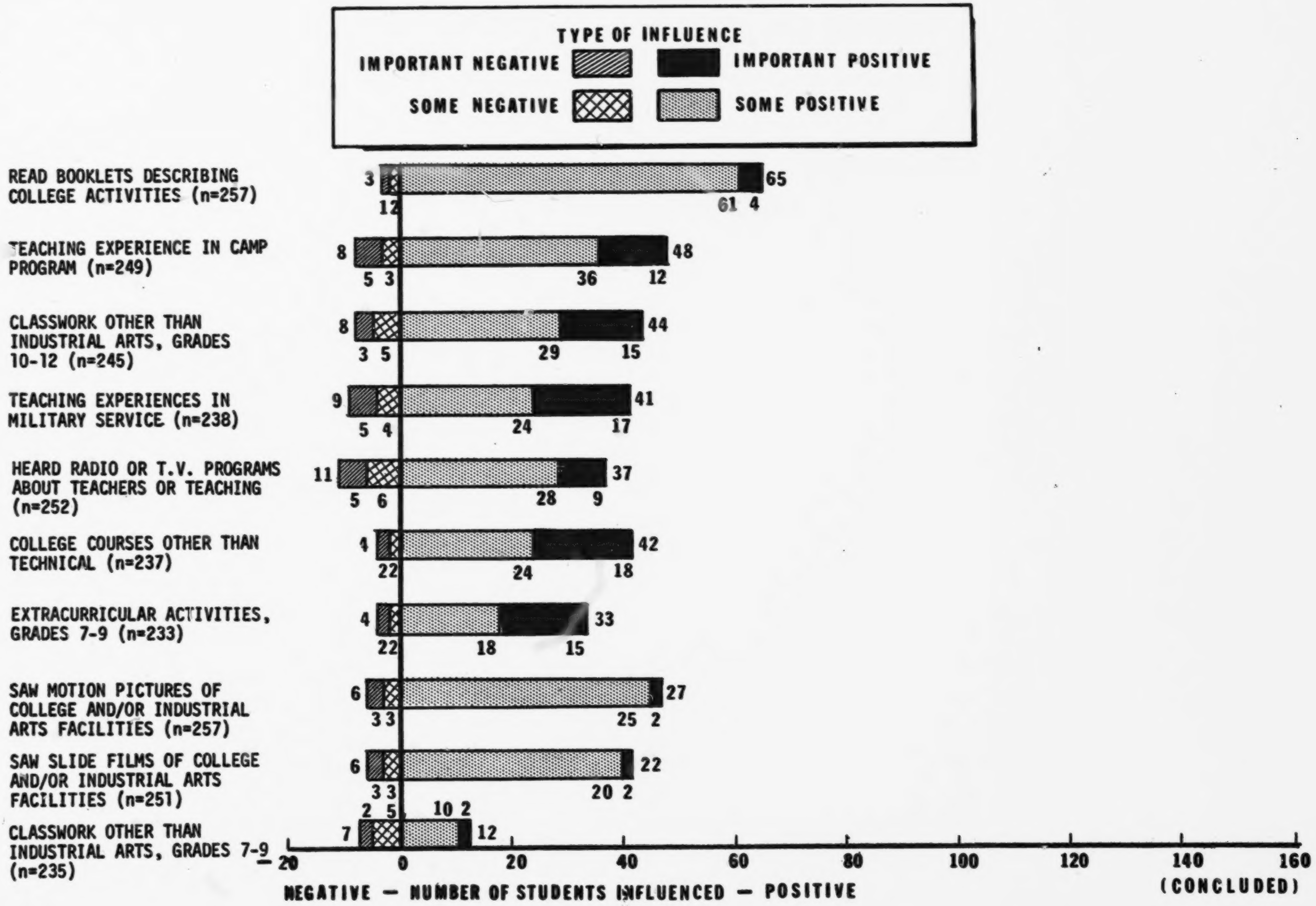

FIG.15

teacher education; (c) visits to college campuses; (d) industrial arts classwork in grades seven through nine; (e) read booklets describing teaching careers; and (f) read newspaper or magazine articles about teachers or teaching. Thirteen other categories of experiences were reported as influential by less than one-third of the respondents (Figure 15, pages 49-51). No important variations in the data were noted among departments of different size or location.

More than three-quarters (76.6 per cent) of the respondents reported that "personal interests or hobbies" were influential in their decision to prepare for industrial arts teaching. One hundred fifty-eight students specified one or more of their interests or hobbies which they considered had been influential. These interests are identified in Table II, page 53. Forty-nine students reported that personal interests or hobbies had influenced their decision to prepare for industrial arts teaching but did not identify the interest or hobby.

Students' Reasons for Choosing Industrial Arts Teaching

Brief personal statements of their reasons for choosing to prepare for industrial arts teaching careers were written by 215 respondents. The statements were classified, by the investigator, into eighteen advantageous and nine

TABLE II

TYPES OF PERSONAL INTERESTS OR HOBBIES WHICH FIRST YEAR INDUSTRIAL ARTS TEACHER EDUCATION STUDENTS REPORTED HAD INFLUENCED THEIR CAREER DECISIONS

	Type of Influence		
Type of Interest	Important Positive	Some Positive	Total Influence
Automotive; including motorcycle and auto mechanics. . .	47	19	66
Woodworking; including boat building, carpentry, furniture and cabinetmaking .	38	18	56
Electronics; including hi-fi, radio and television servicing, ham and citizen band radio	18	13	31
Graphics; including design, drawing and drafting, photography, printing and bookbinding	21	7	28
Metalworking; including sheetmetal, welding, and gunsmithing.	15	2	17
General repair and making things.	11	2	13
Sports; including athletics, archery, flying, racing, riding, water sports.	8	3	12[a]
Modelmaking; including airplanes, boats, cars, erector sets, and railroads	7	4	11
Crafts; including leather and plastic	3	1	4
Music or Art.	1	2	3

[a] One additional respondent indicated that sports had some negative influence upon his career decision.

disadvantageous categories. These are listed in descending order of the frequency (in parenthesis) reported.

Advantages

1. Personal enjoyment of industrial arts activities (81).

2. Personal satisfactions experienced or anticipated in teaching (70).

3. Contribution to pupils of skills, knowledge, attitudes they will need (58).

4. Enjoy working with young people (32).

5. Good vacations for leisure, travel, education, summer employment (27).

6. Many teaching positions available in industrial arts (25).

7. Good working conditions; such as, hours, autonomy, advancement, use of shop equipment (22).

8. Opportunity to continue own education in an area of interest (19).

9. Good, or adequate salaries and benefits (17).

10. Confidence in own ability to become a successful industrial arts teacher (16).

11. Variety in subjects and types of pupils taught. Challenge of keeping up with technological changes (13).

12. Job security in teaching (13).

13. Closer teacher-student relationship permitted by less formal industrial arts teaching situation (13).

14. Opportunity afforded by preparation to enter many industrial occupations if not suited for, or satisfied with teaching (12).

15. Useful contribution to society (11).

16. Contribution to improving the secondary school curriculum (9).

17. Would enjoy the professional or social status associated with teaching (8).

18. Industrial arts teaching would permit utilization of knowledge and experience gained in military or civilian employment (6).

Disadvantages

1. Low salary in teaching (24).

2. Necessity of teaching atypical students, discipline problems, slow learners (10).

3. Long hours (5).

4. Shop management and maintenance responsibilities; poorly equipped shops (4).

5. Industrial arts teacher held in low esteem by other teachers and by administrators (4).

6. Responsibility for pupils safety in teaching a subject which includes hazards (3).

7. Amount of educational preparation needed (1).

8. Difficulty in keeping abreast of changing industrial practices (1).

9. Too much association with children and youth (1).

The advantages identified seemed to be of three types: (a) satisfaction, felt or anticipated, of personal interests; (b) opportunity to make a useful contribution to others; and (c) promise of a satisfactory style of living based upon salary, social status, and working conditions. Disadvantages identified were mainly of the third type and centered upon aspects of working conditions.

CHAPTER IV

COMPARISON OF RECRUITMENT PRACTICES AND FACTORS IN DECISION MAKING

Comparisons were made between the department heads' reports of recruitment practices and several aspects of the students' decisions to prepare for industrial arts teaching.

Timing of Recruitment Practices and Career Decisions

Regional variations in the students' reports of when they first became interested in, and when they decided to prepare for, industrial arts teaching careers should be considered by those responsible for planning recruitment programs. Half (50.7 per cent) of the recruitment practices reported by department heads were used with students in high school (grades ten through twelve), and more than a third (37.5 per cent) were directed toward college students. Variations between Regions I and IV were not large, but they were in the proper direction. That is, in Region I, where more students reported making career decisions in high school, a greater percentage of department heads reported having used recruitment practices with high school students. In Region IV, where more students made career decisions in college, department heads reported a higher percentage of recruitment practices used with college students than their Region I colleagues did. Fifty-two per cent (52.0 per cent) of the recruitment practices reported by Region I department heads were used with high school students and 34 per cent (34.4 per cent) were directed toward college students. In Region IV the comparable data were high school students 45 per cent (44.7 per cent) and college students 40 per cent (40.0 per cent).

The Region I and IV responses reported were obtained from students at six colleges, three in each region. Examination of these six department heads' descriptions of their most effective recruitment practices revealed that they had directed their recruitment efforts toward prospective students at the most appropriate times. In Region IV all three department heads reported that their most effective efforts were with junior college and other college students. In Region I, where students reported making their career decisions earlier, all three department heads reported that their most effective recruitment practices were used with secondary school students and their parents, teachers, and counselors. One department head in this group also reported success with recruitment practices used with college students.

Comparison of Influential Factors in Career Decision Making With Recruitment Practices

More than half of the students surveyed reported parents and industrial arts teachers in grades ten through twelve as having been influential in their decision to prepare for industrial arts teaching. Department heads reported cooperation in recruitment programs with industrial arts teachers most frequently of ten groups identified. The only group listed which directly involved parents, "Parent-Teacher Associations," was reported least often by department heads as one with which they conducted cooperative recruitment programs. In answer to an open-ended question regarding their most effective recruitment practices, department heads most frequently (forty-eight times) reported "contacts with industrial arts teachers." Twelve department heads identified as effective "modern facilities and programs which attract high school pupils and their parents during visits to college."

Five additional groups of persons were identified by more than one-third of the students surveyed as influential in their career decision. College industrial arts students ranked third, after parents and industrial arts teachers. Department heads also ranked college industrial arts students third in their identification of most effective recruitment practices.

Students surveyed reported "college professors or representatives" fourth in terms of total influence upon their career decisions. Department heads reported three recruitment activities conducted by college personnel high on their list of most effective practices. In rank order (in parenthesis) they were: high school visits by college industrial arts department faculty (2nd); career days, etc. for high school pupils on college campus (4th); and college sponsored industrial arts contests for high school pupils (5th).

"Friends of their own age" (5th) and "neighbors and other adults" (6th) were reported next in frequency by students surveyed. The department heads did not report specifically on either of these two categories of persons.

The last group identified as influential by more than one-third of the student respondents was "guidance counselors in grades ten through twelve"(7th). Department heads reported guidance personnel second in frequency as a group with whom they conducted cooperative recruitment programs. In terms of most effective recruitment practices, however, contacts with high school guidance counselors ranked sixth in frequency reported.

Comparison of the utilization of specific recruitment practices reported by department heads, with the relative influence of certain types of experiences upon the career decisions of student respondents may be more readily made. Ten specific recruitment practices which department heads reported using were included in a list of twenty-two types of experiences which first year industrial arts teacher education students rated in terms of the way they influenced their career decisions.

The data presented in Table III, page 62 permit making a number of comparisons between the reports of students and department heads concerning the ten recruitment practices shown. Column (1) shows the rank order of the frequency with which department heads reported that they used these recruitment practices. In column (2) the rank order given represents the frequency with which department heads at the twelve institutions which participated in the student survey reported using the same practices. Column (4) shows the rank order, in a list of twenty-two experiences, of the frequency with which students reported that these ten items influenced their career decisions. Column (3) shows the sequence, from most often to least often, in which the students identified the ten practices as influential.

In comparing columns (1), (2), and (3) in Table III few variations of more than a single rank order are noted. One variation is the fact that visits to college industrial arts facilities ranked first with students and second with department heads in general, but only tied for fourth place with the twelve department heads in the colleges participating in the student survey. Newspaper and magazine articles about teaching or teachers ranked ninth, and in a tie for last by department heads; but was reported fifth in frequency by students.

TABLE III

COMPARISON OF TEN RECRUITMENT PRACTICES REPORTED BY STUDENTS AND DEPARTMENT HEADS IN INDUSTRIAL ARTS TEACHER EDUCATION

Recruitment Practices	Frequency Order Reported			
	By All Department Heads[a] (1)	By Twelve Department Heads[b] (2)	By Students, Sequential Order[c] (3)	By Students, Actual Rank[d] (4)
Visits to college campuses	1	2-3	3	6
Visits to college industrial arts facilities	2	4-5	1	3
Booklets describing industrial arts teacher education	3	1	2	5
Booklets about teaching careers. .	4	2-3	4	8
Speeches about industrial arts teaching	5	4-5	6	12
Booklets describing college activities	6	7-8	7	13
Slide films of college campuses and/or industrial arts facilities	7	7-8	10	21
Motion pictures of college campuses and/or industrial arts facilities	8	6	9	20
Newspaper and magazine articles about teaching or teachers . . .	9	9-10	5	9
Radio or television programs about teaching or teachers . . .	10	9-10	8	17

[a] Based upon data reported in Figure 14, pages 46-47.

[b] Separate tabulation of the responses of the department heads in the institutions which participated in the student survey.

[c] Sequence determined by rating the ten items in order of the frequency reported within a larger list, see below.

[d] Actual rank order reported in a list of twenty-two types of experiences which influenced students' career decisions. See Figure 15, pages 49-51.

CHAPTER V

A PROGRAM OF ACTION

The findings of this study will be useful in improving the recruitment and selection of potential industrial arts teachers only to the extent that they provide starting points for action by teacher educators and others.

What Do Your Students Say?

Variation and diversity were noted in many of the findings reported. Each industrial arts teacher education department is in some ways unique. When did your students first begin to consider the possibility of teaching industrial arts? When did they decide to enter industrial arts teacher education? Which people and what types of experiences do they identify as having influenced their career decisions? What are their reasons for choosing to prepare for industrial arts teaching careers?

Answers to such questions may suggest ways to strengthen recruitment programs in your department. A copy of the questionnaire used in the student survey is included in the appendix. Use it, modify it, or design one of your own; but do find out what your students say were the influential factors in their decisions to prepare to enter the industrial arts teaching profession. More than half of the industrial arts teacher education department heads in the United States indicated a willingness to participate in the student survey, if selected. Each is encouraged to do so now.

How Does Your Department Rate?

Industrial arts teachers and teacher educators are interested in the problem of recruitment and selection of potential industrial arts teachers. A number of them have made contributions on this subject in the professional literature of the field. Eighty-four per cent of the college department heads contributed a usable response to at least one of the questionnaires used in this study.

Department heads in 114 institutions described 196 recruitment practices, used in recent years, which they judged to be their most effective. A check list based upon these practices is included in the appendix. Check the recruitment practices used in your department against the list. Which practices found useful by others might be successful in your situation? What image do parents of prospective college students have of industrial arts teaching; of your department's faculty, facilities and program? How effective are your cooperative programs with industrial arts teachers, guidance personnel, and secondary school administrators? Are community college personnel and students aware of the opportunities offered by industrial arts teaching? Do you encourage active participation in recruiting by your own students?

What Are the Next Steps?

Recruitment and selection of potential industrial arts teachers is not the problem of teacher educators alone. Cooperation with many groups is essential if the problem is to be solved.

Description of the exact nature and extent of the shortage of industrial arts teachers can best be accomplished by the supervisors and administrators responsible for filling the vacancies. At what levels are most new teachers needed? Are generalists or specialists sought? How can working conditions and financial benefits be improved to make teaching industrial arts more attractive? The American Council of Industrial Arts Supervisors and the education officials responsible for the supervision of industrial arts in each state could do much to help answer such questions.

Teacher educators might, through local efforts, or through the American Council on Industrial Arts Teacher Education attempt to find solutions to a number of important aspects of the industrial arts teacher shortage. Studies are needed to find ways to decrease the number of graduates that never enter teaching and to improve retention of those that do begin teaching.

A method of directing interested applicants who fail to meet admission requirements at one institution to others where they would have a chance to succeed would be a service to both the individuals and to the profession. Development of remedial programs to enable students with particular deficiencies to improve their ability to succeed in college might be beneficial in some situations. Open enrollment, without effective remedial programs for those who would benefit from them, is a wasteful and frustrating system of selective college admission.

Teacher educators must also study their present and future needs for additional faculty members. If recruitment of potential industrial arts teachers reaches the level necessary to overcome the present teacher shortage, additional teacher educators will have to be found to teach the increased number of students.

Industrial arts teachers in junior high school should encourage pupils to take some industrial arts courses in high school. This study has indicated the importance of both high school industrial arts teachers and industrial arts classwork in grades ten through twelve as influential factors in college students career decisions. Equally important, however, is the fact that pupils need to be guided into high school programs which will permit them to meet college entrance requirements.

The shortage of industrial arts teachers is national in scope. Increasingly, supervisors and administrators are broadening their search for college graduates to fill their vacancies. Recruitment and selection of potential industrial arts teachers must also be treated as a national problem. Industrial arts teachers at all levels of service are encouraged to help the American Industrial Arts Association carry out its resolution to "initiate and develop a plan for teacher recruitment on a national basis."[33]

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[33] Frontiers in Industrial Arts Education, Addresses and Proceedings of the 28th Annual Convention of the American Industrial Arts Association, San Francisco, 1966 (Washington, D.C.: The Association, 1966), p. 170.

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APPENDICES

NEW YORK UNIVERSITY
School of Education
WASHINGTON SQUARE, NEW YORK, N. Y. 10003
AREA 212 777-2000

Department of Vocational Education

Dear Student:

Your college has been selected to participate in a nation-wide survey of students who, like yourself, have decided to prepare for industrial arts teaching. Will you please cooperate in this research by completing this questionnaire.

You will not be asked to identify yourself on the questionnaire and I assure you that all information which you provide will be kept confidential. Please answer each item as accurately as you can.

Sincerely yours,
Denis J. Foley, Jr.
Denis J. Foley, Jr.

Factors Influencing Career Decisions of Industrial Arts Teachers-In-Training

1. How old are you today? _____ years

2. Check your sex: Male____
Female____

3. Check your student status: Full time____ Part time____

4. Check your marital status: Single____ Married____
Widowed, Separated, or Divorced____

5. Name the country (or state, if U.S.A.) in which you were born: ____

6. Mother's birthplace________________________
(country or state)

7. Father's birthplace________________________
(country or state)

8. When did you begin your first year of the industrial arts teacher education curriculum at this college?
______________ (month/year)

Part I Educational and Financial Information

INSTRUCTIONS: Please answer each question by circling the letter at the right which represents your response most completely and accurately.

1. What was your student classification when you began the industrial arts teacher education curriculum?
   A. new freshman, B. transfer student, C. graduate student, D. special student, E. other explain ____________________ 1. A B C D E

2. If you answered B or C to item #1 please answer this question. Where did you do your previous college work? If more than one applies, circle each.
   A. another curriculum of this college, B. another four year college, C. junior or community college, D. other, explain ____ 2. A B C D

3. What is the highest level completed in school by either your father or mother?
   A. grade 8 or lower, B. some high school, C. high school graduation, D. some college, E. bachelor's degree or higher. 3. A B C D E

4. Which members of your family are, or have been teachers? If more than one applies, circle each.
   A. none, B. father or mother, C. brother or sister, D. aunt or uncle, E. wife. 4. A B C D E

5. When did you first become interested in becoming an industrial arts teacher?
   A. in grade 9 or earlier, B. in grades 10-12, C. during college, D. during graduate study, E. as an out of school adult. 5. A B C D E

6. When did you decide to prepare for industrial arts teaching?
   A. in grade 9 or earlier, B. in grades 10-12, C. during college, D. during graduate study, E. as an out of school adult. 6. A B C D E

7. At this time do you plan to teach industrial arts if you successfully complete the industrial arts teacher education curriculum?
   A. definitely will, B. probably will, C. undecided, D. probably will not, E. definitely will not. 7. A B C D E

8. If you teach industrial arts, in what type of school would you prefer to begin your teaching career?
   A. elementary, B. junior high school, C. combined junior-senior high, D. high school, E. college. 8. A B C D E

9. What is your financial status at this time?
   A. dependent of parent or other person, B. self supporting, no dependents, C. supporting self and dependent, D. supporting self and two or more dependents. 9. A B C D

10. Where do you live while attending college? A. home of parent or guardian, B. own home, C. college dormitory, D. other college approved housing.
10. A B C D

11. If you answered C or D to item #10 please answer this question. How much do you pay per year for room, meals, and laundry? A. $499.00 or less, B. $500.00 to $699.00, C. $700.00 to $899.00, D. $900.00 to $1099.00, E. $1100.00 or more.
11. A B C D E

12. What is the cost of tuition and fees for one year of full time study at your college? Include summer session if you attend and check here. ☐ A. $199.00 or less, B. $200.00 to $699.00, C. $700.00 to $1199.00, D. $1200.00 to $1699.00, E. $1700.00 or more.
12. A B C D E

13. What is the cost of books and other supplies for one year? Include summer session if checked in item #12. A. $99.00 or less, B. $100.00 to $199.00, C. $200.00 to $299.00, D. $300.00 to $399.00, E. $400.00 or more.
13. A B C D E

14. How much do you spend per year for transportation and other college expenses not included above? A. $249.00 or less, B. $250.00 to $499.00, C. $500.00 to $749.00, D. $750.00 to $999.00, E. $1000.00 or more.
14. A B C D E

15. How many hours per week are you gainfully employed during the weeks when you are attending classes? A. none, B. 1 to 8 hours, C. 9 to 16 hours, D. 17 to 32 hours, E. over 32 hours.
15. A B C D E

INSTRUCTIONS: In the question below circle the letter in the column at the right of each item which best represents your situation.

16. How much of your yearly college expenses are paid for from each of the following sources:

		A. none	B. less than $500.00	C. $500.00 to $999.00	D. $1000.00 to $1499.	E. $1500.00 or more
a. Your personal earnings or savings.............	a.	A	B	C	D	E
b. Your parents (guardians) or other relatives....	b.	A	B	C	D	E
c. Scholarships or other financial grants.........	c.	A	B	C	D	E
d. College loans or other forms of deferred payments..................................	d.	A	B	C	D	E

Part II Factors Influencing Your Decision to Prepare for Industrial Arts Teaching

INSTRUCTIONS: The purpose of this section is the identification of those people and experiences which influenced your decision to prepare for industrial arts teaching. At the right of each factor circle the letter which best represents how you were influenced by it.

E. important negative influence
D. some negative influence
C. little or no influence
B. some positive influence
A. important positive influence

People who influenced me

1. Parents.......................................1. A B C D E
2. Brothers or sisters...........................2. A B C D E
3. Other relatives...............................3. A B C D E
4. Friends of your own age.......................4. A B C D E
5. Neighbors or other adults.....................5. A B C D E
6. Industrial Arts teachers, grades 10-12........6. A B C D E
7. Industrial Arts teachers, grades 7-9..........7. A B C D E
8. Other teachers, grades 10-12..................8. A B C D E
9. Other teachers, grades 7-9....................9. A B C D E
10. Teachers in sixth grade or earlier...........10. A B C D E
11. Guidance counselors, grades 10-12............11. A B C D E
12. Guidance counselors, grades 7-9..............12. A B C D E
13. Other school persons, grades 7-12, identify (coach, principal, etc.) ______________________...13. A B C D E
14. College professors or representatives........14. A B C D E
15. College students majoring in Industrial Arts......15. A B C D E
16. Other college students.......................16. A B C D E
17. Other persons, identify______________________...17. A B C D E

Experiences which influenced me

1. Visited college campuses......................1. A B C D E
2. Visited college industrial arts facilities.........2. A B C D E
3. Saw motion pictures of college campuses and/or industrial arts facilities......................3. A B C D E
4. Saw slide films of college campuses and/or industrial arts facilities......................4. A B C D E
5. Read newspaper or magazine articles about teachers or teaching..5. A B C D E
6. Read booklets describing teaching careers..........6. A B C D E
7. Read booklets describing industrial arts teacher education...7. A B C D E
8. Read booklets describing college activities........8. A B C D E
9. Listened to speeches about industrial arts teaching9. A B C D E
10. Listened to radio or T.V. programs about teachers or teaching.......................................10. A B C D E
11. Extracurricular activities, grades 10-12, identify______________________________......11. A B C D E
12. Extracurricular activities, grades 7-9, identify______________________________.....12. A B C D E
13. Industrial arts classwork, grades 10-12...........13. A B C D E
14. Industrial arts classwork, grades 7-9.............14. A B C D E
15. Other classwork, grades 10-12, identify___________15. A B C D E
16. Other classwork, grades 7-9, identify_____________16. A B C D E
17. College technical courses.......................17. A B C D E
18. Other college courses, identify_________________18. A B C D E

E. important negative influence
D. some negative influence
C. little or no influence
B. some positive influence
A. important positive influence

19. Membership in community youth groups, identify (Scouts, YMCA, 4H, etc.) ____________ 19. A B C D E
20. Teaching experience in camp program............... 20. A B C D E
21. Teaching experiences in military service.......... 21. A B C D E
22. Personal interests or hobbies, identify (ham radio, auto repair, etc.,) ____________ 22. A B C D E

Please write in below any important influences upon your decision to prepare for industrial arts teaching not listed above.

1. ____________________

2. ____________________

Part III Reasons for Choosing Industrial Arts Teaching

INSTRUCTIONS: The purpose of this section is to determine your reasons for choosing to prepare for a career in teaching industrial arts. In the space below please write a brief personal statement of the advantages and disadvantages, if any, of being an industrial arts teacher.

1. ____________________

2. ____________________

3. ____________________

APPENDIX B

Check List of Recruitment Practices for Industrial Arts Teacher Educators

Introduction. These recruitment practices were identified by industrial arts teacher education department heads as their most effective. Those at the top of the list were reported most frequently. If you have used any of them, a poll of your students may indicate which practices the students feel influenced their decisions to enter industrial arts teacher education. Further down on the list are practices reported less frequently by department heads as effective recruitment practices. Among them may be an idea which could prove effective in your department's recruitment program.

1. Contacts with industrial arts teachers, especially alumni.

2. High school visits by college industrial arts department faculty.

3. College industrial arts students recruit other college and high school students.

4. Career days, open house, or conference activities for high school pupils on college campus.

5. College sponsors industrial arts contests for high school pupils.

6. Contacts with high school guidance counselors.

7. Modern facilities and programs attract high school pupils and their parents during visits to college.

8. Junior college visits by college industrial arts department faculty.

9. Distribution of brochures to high school and junior college students.

10. Scholarships for industrial arts college programs.

11. Contacts with own college freshmen and counselors.

12. Write personal letters to interested high school pupils.

13. College has paid recruiters traveling the state and country.

14. Contacts with high school supervisors and administrators made through student teaching program.

15. College industrial arts department offers general cultural course in "American Industries" which stimulates the interest of non-industrial arts majors.

16. Industrial arts teachers association brings secondary school pupils to visit the college.

17. College industrial education faculty points out advantages of teaching to non-teaching majors in the department.

18. College conducts annual recruitment conference on campus for secondary school industrial arts teachers and counselors.

19. Filmed presentation (slides and tape recorder) of the college departments' offerings.

20. High school industrial arts curriculum revision has resulted in a noticeable increase in recruits from those schools.